EFECTIVENESS OF ALMA ALFATIR WATER COMPRESS ON BREAST ENGORGEMENT AMONG POSTANTAL WOMEN IN SREE MOOKAMBIKA MEDICAL COLLEGE HOSPITAL AT KULASEKHARAM, KANYAKUMARI DISTRICT.

A DESSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSTIY CHENNAI, IN PARTIAL FULFILMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

OCTOBER 2017

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BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled **" A study to asses the effectiveness of Alma Alfatir water compress on breast engorgement among post natal women in Sree Mookambika Medical College at Kulasekharam in Kanyakumari District"** is a bonafide research work done by Mrs. Dhanya. M. II Year MSC (N) in Sree Mookambika College of Nursing, Kulasekharam under the guidance of **Associate Professor Mrs. Prabha, M.Sc (N) and Prof. Dr. Mrs. T.C. Suguna, HOD of Obstetrics and Gynaecological Nursing** in partial fulfillment of the requirement for the Degree of Master of Science in Nursing under Tamilnadu Dr. M.G.R. Medical University.

Place: Kulasekharam

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CERTIFICATE

This is to certify that the dissertation entitled **" A study to assess the effectiveness of Alma Alfatir water compress on breast engorgement among post natal women in Sree Mookambika Medical College at Kulasekharam in Kanyakumari District"** is a bonafide research work done by Mrs. Dhanya. M. II Year MSC (N) in Sree Mookambika College of Nursing, Kulasekharam under the guidance of **Associate Professor Mrs. Prabha, M.Sc (N) Obseterics and Gynecological Nursing and Prof. Dr. Mrs. T.C. Suguna, M.Sc,(N), M.A, Ph.D, HOD Obseterics and Gynecological Nursing** in partial fulfillment of the requirement for the Degree of Master of Science in Nursing under Tamilnadu Dr. M.G.R. Medical University.

Place: Kulasekharam

Date :07.08.2017

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Kulasekharam.

DECLARATION

I here declare that the present dissertation titled **" A study to asses the effectiveness of Alma Alfatir water compress on breast engorgement among post natal women in Sree Mookambika Medical Hospital, Kulasekharam, Kanya Kumari District"** the outcome of the original research undertaken and carried out by me under the guidance of **Associate Professor Mrs. Prabha, M.Sc (N), Obseterics and Gynecological Nursing and Prof. Dr. Mrs. T.C. Suguna, M.Sc,(N), M.A, Ph.D, HOD Obseterics and Gynecological Nursing** Sree Mookambika College of Nursing, Kulasekharam. I also declare that the material of this has not fomed in anyway, the basis for the award of any degree or diploma in this university or any universities.

Place: Kulasekharam **Mrs. Dhanya. M**

Date : 07.08.2017 II year M.Sc (N)

TABLE OF CONTENTS

Table of Contents Continues...

LIST OF TABLES

LIST OF FIGURES

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INVESTIGATOR

ABSTRACT

Mother Hood is a very humanizing effect. Mother is placed at the level of God to provide love warmth and satisfy need of baby. Engorgement is due to milk excessively filling the breast together with fluid retention in the same area usually the breast feel full, hard, tight tender painful hot to touch. Alma alfatir water compress is traditional methods which reduce the breast engorgement and promote lactation. The main objective of the study to evaluate the effect of Alma alfatir compress on breast engorgement among post natal women. The research design selected for the study was quasi experimental pre test- posttest control design. purposive sampling technique was followed to obtain a sample of 60 post natal women (30 post natal women in experimental group and 30 post natal women in control group) pre test was done for both group by 6 point breast engorgement scale. Alma Alfatir water compress was given only to the experimental group at the interval 6 hours (2 times a day) for 3 days. The data was analyzed using descriptive and inferential statistics.

The major findings of the study on effectiveness of Alma alfatir application for breast engorgement among post natal women showed the mean pre test score of the post natal women with breast engorgement before application of Alma Alfatir compress (5.60) is more than the mean post test score (2.63) after application of Alma Alfatir Compress independent “t” test shows that the “t” value 5.63 is higher than the table value. Hence Alma Alfatir compress was effective in breast in reducing the severity of breast engorgement(df 58,$p<0.05$)

Key words : Alma Alfatir water, post natal women, breast engorgement.

CHAPTER I

Introduction

"It begins at birth, our very first act

After birth is to suck our mothers …….. milk

This is an act of affection of compassion

With out that act, we can not survive

That's the way of life. That's the reality."

- Dalai Lama& Howard cutter

Mother hood is a very humanizing effect .Mother is placed at the level of god to provide love warmth ad satisfy need of baby. It is usually a joy full event. When women given birth to a baby despite of tremendous and discomfort. The post natal period of a mother.

The word 'postnatal' comes from the Latin word 'post' which means 'after' and 'natails' means 'of birth'. It is the period beginning immediately after the birth of a child and extending for about 6 weeks.

Breast feeding is the most enriching experience for every woman. It plants the seeds of mother child bonding. It is most natural and unique experience for every month. It is a cherished and a learned art. Breast milk the 'Cinderella substance of the decade' is nature's most precious gift to the new born and equivalent which is yet to be innovated by our scientific community despite tremendous advances in science and

technology. Just as there is no substitute for mother's love, there is no substitute for mother milk.

Breast feeding is beneficial to new born babies, infants, and mother Breast milk contain optimal nutrient that are necessary for the growth of babies as well as immunological ingredients that can protect babies from bacterial infection. In addition, the secretion of oxytocin,,a hormone that cause uterine contractions and reduces post partum bleeding is facilitated by breast feeding. Breast feeding reduces post partum depression and enhances the attachment between the mother and the baby. This practice also has economic benefits.(Lawrence RA)

The breast produce milk which serves to nourish to nourish the infant .It provides complete nutrition for the newborn baby and contain carbohydrate (lactose) fat and protein as well as micronutrients. In the first few days after delivery(as well as the first few days before),the breast secretes colostrums which is similar in composition to breast milk except has very little fat.

Despite the advantages, breast feeding is widely practiced due to the pain and discomfort of cesarean section wounds, breast engorgement, and breast pain mother who undergo cesarean births may neglect breast care due to the pain after the surgery which requires medical attention. Taking into the consideration the birth history, which affects the breast feeding period, primi porous women, may need an active breast care intervention, It is recommended to imitate breast feeding with in 30 minutes after delivery and prior to the development of breast engorgement.

Breast engorgement is a physiological condition that is characterized by painful swelling of the breast as a result of sudden increase in milk volume, lymphatic and vascular congestion interstitial edema.

Engorgement is due to milk excessively filling the breast together with blood and fluid retention in the same area, obstruction of outflow and also due to insufficient empting of the breast milk from the mother due to poor transfer of breast milk and during the process of sucking usually breast full, hard, tight, tender, painful and hot to touch and fever may be develop the baby may have a hard time to latch on and suck.

World wide the incidence rate of breast engorgement is 1:8000 and in India it is 1:6500 women. It occur between the third to fourth day of post partum and more than2/3 of women developed tenderness on the fifth day of post partum. Some developed as late as 9 to 10 day post partum.Approximately2/3 of women experience at least moderate symptom of breast engorgement.(Sankar 2004)

Early breast care is known as to promote lactation and reduce breast pain. Early breast care includes starting breast feeding from the delivery day and breast massage using a hot towel. Additional intervention to relieve breast engorgement include cold and hot packs Cabbage compress, massage and acupuncture therapy, cabbage compress is a folk remedy for breast engorgement.

There are many management technique available to treat breast engorgement, for example, ice pack, application of hot fomentation, breast massage, breast binding therapy, uplifting support bra to minimize edema, applying green cabbage leaves, hand expression, breast pump etc.

Warm compress is a very safe provide pain relief and easy express the milk with out medication and don’t have to be concerned about side effect warm therapy is the application of either superficial or deep superficial heat can be applied using a hot packs, hot moist suppress or warm application .The temperature of water compress

ranged between 43c to 46c assessed by lotion thermometer the suggested time is 15 to 20 minutes and removes the compress and allowing the area to over heat application leads to burns over dilation of blood vessels and produce secondary effect of heat vasoconstriction.(Resmy v, S J Nalini 2014)

Need for the study

Breast feeding is widely encouraged in current obstetric practice. While it advantages to mother and child are well recognized, there are a number of problems associated with it. One common problem that is encountered is breast engorgement which makes continuation of breast feeding difficult.

Breast engorgement is a common complication of the early puerperium and usually occurs between 2-5 days after delivery. It arises either as a result of venous and lymphatic stasis prior to the onset of milk secretion or by obstruction of the lactiferous duels following the onsets of lactation.

Breast engorgement is a painful distention and congestion of the breast which makes the mother ill and difficult for the baby to latch on to the mother's breast. It is the condition in which there is painful swelling of the breasts with sudden increase in milk volume, vascular congestion, and edema during the first two weeks of post natal period. The precipitating factors of breast engorgement are poor attachment, delayed initiation of breast feeds minimum duration of breast feeding, missing feeds giving formula feed to the baby etc. Breast engorgement can hinder the development of successful breast feeding, leading to early breast feeding cessation and is associated with serious illness to mother as breast infection.

Breast engorgement is associated with hard, painful, throbbing, aching and tender breast which may result to women feeding analgesia, developing mastitis or temporarily or permanently stopping breast feeding. The distress associated with breast engorgement may mean that women initiating breast feeding may no preserve beyond the first few days after the birth.(mass 2004)

Severe engorgement can make difficult for baby to latch on breast properly and feed well. This can be made the problem worse. As the result baby may not empty completely. Nipple may become sore and cracked. Then baby attempt to latch on over fall breast if then the mother if feeding less due to nipple sore the engorgement without treatment of severe engorgement will lead to block the milk duct and produce breast infections such as mastitis and abscess.

The common breast complication in pueperium are breast engorgement , cracked and retracted nipple leading to difficult in breast feeding, mastitis or breast abscess and lactation failure. Breast engorgement and infection are responsible for puerperal pyrexiativities of a growing infant. Breast engorgement is a common physiological problem for lactating mother if occur in the mammary gland it I defined as congetionand distension with fluid the lactation literature defines as sudden increase

Untreated engorgement put pressure on the milk ducts of the causing a plugged ducts. The women will often feel a lump in one part of the breast and the skin that area may be warm if it continue unchecked the plugged duels can become a breast infection at which point she may have fever or flu like symptoms. (Dr. Chris)

Several studies regarding breast engorgement have reported that the incidence rate of 2-3% of mastitis, 25-35% for breast engorgement Brest feeding problem such

as breast engorgement, flat nipple, inverted nipple , cracked nipple were detected in 49% of women in India.

The temperature of water compress ranged between 43c to46c assessed by lotion thermometer .The suggested time is15 to 20mintuesand removes the compress and allowing the area to over heat application leads to burns over dilation of blood vessels and produce secondary effect of heat vasoconstriction.(Ressmy V, S J Nalini etal 2014)

The incidence of breast engorgement varies form a few to 33% lactating women and form developed countries the incidence varies 0.041% and8.9% breast problem include engorgement(WHO 2009)

Belogum DR(2007) conducted a descriptive study on women's problem when discharged early from the hospital after a normal vaginal birth, result revealed that breast engorgement was one of the most prevalent problem which constituted 71.4%

Engorgement is a well known but poorly researched aspect of lactation. The investigator during her clinical experience in the maternity ward found that the primi postnatal mother were ignorant, about breast feeding that lead to the engorgement of the breast. The mothers were receiving pharmacological and non- pharmacological methods like expression of breast milk, using a breast pump binder,, nippleshield,hot and cold application. These methods were costly and causing pain to mother, so the investigator felt that Alma Alfatir compress can be advised to the mother in low cost which can be used easily even at home with out guidance .But few researchers have been conducted to monitor the effectiveness of Alma Alfatir water compress on breast engorgement .This made the researcher to review the literature and find way of relies on the statement.

Statement of the Problem

"A study to assess the effectiveness of Alma Alfatir water compress on breast engorgement among post natal women in Sree Mookambika Medical College Hospital " at Kulasekharam, Kanyakumari District.

Objectives of the Study

- To assess the breast engorgement before and after Alma Alfatir application among postnatal women.
- To evaluate the effect of Alma Alfatir water compress on breast engorgement among post natal women.
- To find the association between the level of breast engorgement and selected demographic variable such as Age,Education,Food habits, Type of family and Area of residence
- To find the association between the level of breast engorgement and selected obstetrical variables such as Order of parity, Mode of delivery, Post natal day, Type of new born, Type of nipple, Initiation of breast feeding, Frequency of feeding, Duration of feeding, Position adapted for feeding, Pattern of breast feeding at each time and Mode of breast feeding.

Hypothesis

- H1: There is a significant reduction in breast engorgement score in the experimental group after alma alfatir water application than in control group.

- H2: There is a significant association between the degree of breast engorgement and the selected demographic variables Age, Education, Food Habits , Type of Family, Area of Residence.

- H3:There is a significant association between the degree of breast engorgement and the selected obstetrical variables such as Order of parity, Mode of delivery, Post natal day, Type of new born,, Type of nipple, Initiation of breast feeding, Frequency of feeding, Duration of feeding, Position .adapted for feeding, Pattern of breast feeding at each time, and Mode of breast feeding.

Operational Definition

1. Effectiveness: In this study effectiveness refers to reducing the level of breast engorgement as determined by significant reduction in breast engorgement score by using breast engorgement assessment scale among post natal mother after administration of Alma Alfatir compress.

2. **Alma Alfatir water Compress:** In this study it refers to application of alma alfatir water (Luke warm water) in the form of moist heat (43^0C to 46^0C) over the engorged breast with cotton towel.

3. **Breast Engorgement:** In this study **r**efers to the painful fullness of breast with milk. which is assessed by 6 point breast engorgement assessment scale.

4. **Post Natal Mother:** Women who belong to the post natal period is called post natal mother, post natal period refer to a period begins immediately after the birth of a baby and extending for about 6 weeks. In this study post natal mother refers to post natal women who belong to 3rd to 5th day of post partum period .

Variables

Independent Variables: Independent variable is stimulus or activity that is manipulated or varied by the researcher to create the effect on the dependent variable. In this study the independent variable indicate the Alma alfatir compress over the breast for a period of 3 days.

Dependent variable : Dependent variable is the outcome or response due to the effect of the independent variable, which researcher wants to predict or explain. In this study the dependant variable indicates breast engorgement.

Demographic variables: The characteristics and attribute of the study subjective are considered as demographic variable. The demographic variable is Age, Education, Food habits, Type of Family and Area of residence

Obstetric variables: The obstetric variables are Order of pregnancy, Mode of delivery, Post natal day,Typeof new born, Type of nipple, Initiation of breast feeding, Frequency of breast feeding, Duration of feeding., position adapted for feeding, Pattern of breast feeding at each time and Mode of breast feeding.

Assumption:

- Alma alfatir water is one of the complementary therapy used to reduce breast engorgement.
- Alma alfatir water are found to have no side effect when compared with other pharmacological treatment.
- Alma alfatir water improves the health and promotes relaxation.
- Breast massage may be effective in reducing breast engorgement among the post partum women.
- Breast engorgement if not given attention may lead to mastitis and breast abscess leading to poor feeding of neonate.

Delimitation

1. Study is delimited to the postnatal women who had undergone LSCS with moderate to severes Breast engorgement in Sree Mookambika Medical College Hospital in Kulasekharam.
2. Study is delimited only for one month period during data collection.

Ethical Consideration

The research proposal was approved by the College dissertation committee of Sree Mookambika College of Nursing. The permission to conduct the study was obtained from the Chairman and Director of the institution. Oral consent was also obtained from each study included in the study. Subjects were asserted that privacy and confidentiality would be maintained.

Conceptual Frame Work :

The conceptual frame work of this study based upon Sister Callisla Roy's. Adaptation model which have five components – person, goal of nursing, health, environment, nursing activity.

Person : Roy defined person, the recipient of nursing care, as a living complex adaptive system with internal process (the cognator & regulator) acting to maintain adaptation is 4 adaptive modes (physiological mode, self concept, role function and independence).

Goal: Goal of nursing in this model into the promote adaption in four adaptive mode and there by to reduce the breast engorgement among post natal mother.

Health: Health has been defined as a state and process of well being and becoming an integrated whole process.

Environment: Roy defined environment as all condition circumstances and influences that surrounded effect the development of the behavior of a person.

Nursing activity: According to Roy nursing process has 6 steps - assessment of behavior, assessment of stimuli, nursing diagnosis, goal setting, intervention and evaluation. In this study all the activities of the researcher are considered as nursing activities.

These models consist of four levels.

- Adaptation level
- The control process
- Effector
- Output

1. Adaptation level (input)

The adaption level is the stimuli from the external environment and the internal environment including the formation form the cognator and the regulator.

The input consist of 3 stimuli

a. Focal stimuli
b. Contextual stimuli
c. Residual stimuli
d. Focal Stimuli

a. Focal stimuli: The stimuli immediately confronting the person and the one to whom the patient (person) must make an adaptation response to the investigator and alma alfatir compress. In this study the focal stimuli is the post natal mother. Who had under moderate to severe breast engorgement

b. Contextual stimuli: Contextual stimuli are the stimuli present in the situation or surrounding the event, that contribute to the effect of focal stimulus. In this study, selected demographic variable, such as age, education, food habit, type of the family,

obstetric variables, type of nipples, order of pregnancy, post natal day frequency of breast feeding, mode of breast feeding.

c. Residual stimuli: Residual stimuli are those general vague antiguos factors that may be affecting a person but their influence cannot be immediately associated or validated. These stimuli are not under the preview of the present study. The residual stimuli include beliefs and attitude.

2. The Control process:

The Roy's adaptation model describe coping as the use of behavior in response to stimuli. According to her coping mechanism are two types Regulators and Cognators.

Regulator: Regulator is a subsystem coping mechanism which responds automatically through neural chemical process.

Cognator : Cognator is a subsystem coping mechanism which responds through complex processes of perception and information processing, learning, judgment and emotion.

In this study "Alma alfatir water compress" is considered as regulator coping mechanism. It is assumed that providing alma alfatir water compress over breast to the post natal mother will help to reduce the breast engorgement.

3. Effector

Adaptive modes or effectors are the classification of way a copying that manifests regulator and cognator activities. The adaptive modes are psychological, self concept, role function and independence modes.

In this study the effect of alma alfatir compress was considered to be manifested in the physiological mode through regulator coping mechanism and other adaptive modes such as the self concept mode (Alma Alfatir compress over breast) role of performance (compress with alma alfatir over breast) and independence mode were beliefs and given human values to nurse.

4. Output

Output of a person as a system is the behavior of the person. Output behavior can be both internal and external. These behaviors may be observed, measured or subjectively reported.

In this study reduced the breast engorgement among the post natal mother after the implementation of Alma alfair compress was considered as output in adaptive response and reduce the breast engorgement.

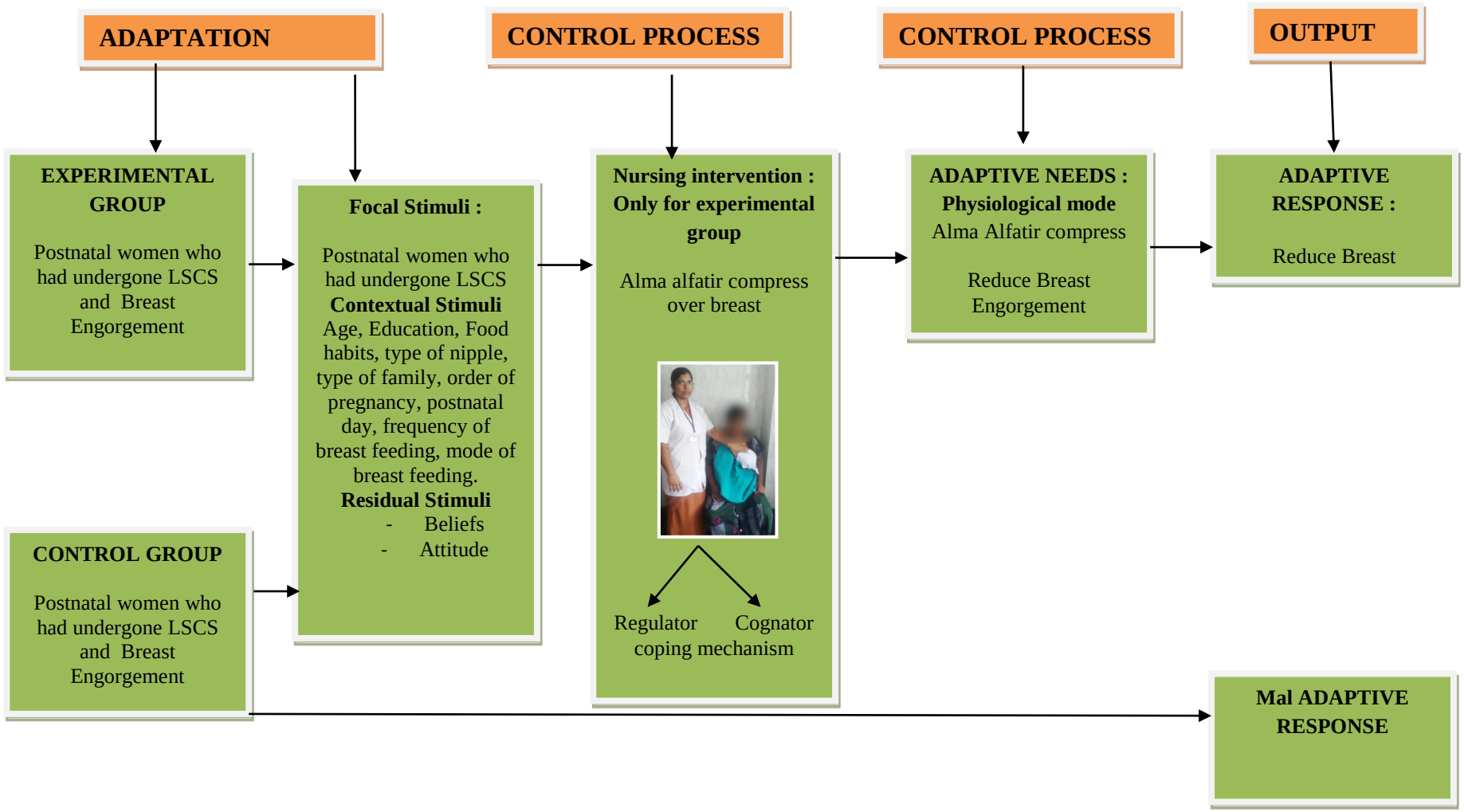

Figure 1 : Conceptual Frame Work Based on Sr. Callista Roy's Adaptation Model

CHAPTER II

REVIEW OF LITERATURE

Review of literature is a key step in research process. The last of reviewing literature involve identification; select one critical analysis and responding information on topic of interest. The main goal of literature review is to develop a strong knowledge base to carry oil research and other non research activities in the education and clinical practice selling keeping this in mind the investigator protect in to the accessible source and gained on in depth understanding from the research studies.

A literature review is an evaluation report of information found in the literature related to selected area of study the review describes summaries, evaluate and clarifies the literature. It gives a theoretical base for the research and help to determine the nature of research. Research literature was reviled and organized under the following heading.

The available literature was organized under the following heading.

Section A : Literature related to breast engorgement.

Section B : Literature related to effectiveness of non pharmacological therapy on breast engorgement.

Section C : Literature related to effect of Alma Alfatir water compress on breast engorgement.

Literature related to breast engorgement:

Guliena ER (2004) conducted a study to document the breast feeding problems encounter in rural community area to know the reason for starting top feed in infants less than 6 months of life. Using the stratified sampling method 150 mother infant pair was enrolled from 150 post natal women. The study concluded that maximal on set of breast feeding problem was noted in the first two week of neonatal period. Not enough milk was responsible for starting to feed 44 (53.6) cases 19 (13.11) mother had other problem like sure Nipple, Mastitis, Breast engorgement and other illness.

De, olivera L.D(2006) conducted a study randomized clinical trail compared frequencies of exclusive breast feeding and lathing related problem during the first 30 days. Among 74 mother who received 30 minutes counseling session on breast. Feeding technique in the maternity ward with 137 controls. The frequency of exclusion breast feeding among mother who had received intervention was similar to control by 7 days (79.3%) (82.5 %) Respective and 30 days 60.8 % vs 53.3 % there was no difference between groups in frequencies sure nipple in the breast engorgement exclusive breast feeding rate and decrease the incidence of breast feeding problem during the first month.

Donald. W. Harmone, (2002) conducted a study Oxytocin Level and Breast Engorgement in Prim Para Mother with Postpartum Blues. Method this study was used cross sectional design sampling technique is Random Sampling was used for this study. A total of 41 prim Para mothers choose and selected in this study. Data were analyzed with Spearman Test and Mann Whitney Test using and alpha; & lt; 0,05. Result: The result shown that the oxytocin level change comparing the

postpartum blues in p=0,000. Discussion: There was difference of oxytocin level between postpartum blues mother and non postpartum blues mother and increasing of breast engorgement incident to postpartum blues mother comparing to not postpartum blues mother.

Prof Veena M Joseph and E.J.P. Pavithr and Poojmol. K.B, (2015) conducted a study to assess the Effect of Structured Teaching programme on the Prevention and Management of Breast Engorgement Among the Postnatal Mothers Admitted in The Postnatal Mothers Admitted in The Postnatal ward, in a Selected Tertiary Hospital Kanchipuram District. A study to assess the structured teaching programme a convince sampling technique was used in that 30 postnatal mothers were selected. Data was collected structured questionnaire was used to assess the knowledge and prevention of breast engorgement. The data was analyzed. The mean pre test score was 10.43 ± 3.191 and the mean post test score was 19.50 ± 0.682. The difference between the pre and post test scores was highly significant at P < 0.05 level (2 tailed). Thus the study revealed that the structured teaching was effective in improving the level of knowledge on the prevention and management of breast engorgement among the postnatal mothers.

W H Kee and S L Tan and V Lee And Y M Salmon (1989)University of Singapore, conducted a study to find out the treatment of breast Engorgement With Serrapeptase (Danzed) : A Randomized Double-Blind Controlled Trial. A total of 70 patients complaining breast engorgement were selected for the study. These patients were randomly divided into two groups a treatment group and placebo group. A single observer, unaware of the group the patients were in, assessed the severity of each of the symptoms and signs of breast engorgement before treatment were

commenced, and daily for 3 days, during which therapy was administered. Danzen was noted to be superior to place to for improvement of breast pain, breast swelling and in duration and while 85.7 % of the patients receiving Danzen had " Moderate to Marked" improvement, only 60.0% of the patients receiving placebo had a similar degree of improvement. "Marked" improvement was found in 22.9% of the treatment group and 2.9 % of the placebo group. These differences were statistically significant ($P< 0.05$). No adverse reactions were reported with the use of Danzed. Danzen is a safe and effective method for the treatment of breast engorgement.

Ms. Reena, Dr. S. Rajeswari, Mrs. R. Sumathi (2015) conducted a study to findout the Effectiveness of Lactational Counseling on Breast Engorgement and Newborn Feeding Behavior among Primigravidae at Sri Ramachandra Hospital. The research design chosen for the study was no equivalent quasi-experimental posttest control group design. Primigravudae who are admitted for safe confinement were the participants. Study group received lactation, whereas control group received the routine care form the health care professionals. Breast engorgement and new born feeding behavior were assessed during first 3 days of postnatal period using breast engorgement assessment scale and new born feeding behavior assessment tool respectively Data were analyzed using standardized technique. The significant difference found on breast engorgement and new born breastfeeding behavior among primigravidae at $p<0.001$. Thus the study proved that the study proved that the effectiveness of lactation counseling on the breast engorgement and the newborn breastfeeding technique among primigravia mother.

Sharma poonam (2013) conducted study to assess knowledge of post natal mother regarding breast engorgement in Punjab. The study was a non- experimental, exploratory study .The study include 100 post natal mother were selected by purposive sampling technique. Data was collected by questionnaire data was analyzed by descriptive and inferential statistics. Findings revealed that majority of postnatal mothers (52%) had average knowledge regarding breast engorgement. Mean percentage of knowledge score was highest in symptoms (64.16%) and lowest in area of factors leading to breast engorgement (42.62%). Education variable was found to be associated with knowledge of postnatal mothers none of the other variables were found breast engorgement, postnatal mothers.

LITERATURE RELATED TO EFFECTIVENESS OF NON PHARMOCOLOGICAL THERAPHY ON BREAST ENGORGEMENT

V. Cheryl Nikodem (Cur) , Donna Danziger, etal (1993) conducted a study to find out the Cabbage Leaves Prevent Breast Engorgement in randomized controlled trial in this study a total of 120 breast feeding women in that 72 hours postpartum, were randomly allocated to an experimental group who received application of cabbage leaves to their breasts, or to a control group who received routine care. The experimental group tended to report less breast engorgement, but this trend was not statistically significant. At six weeks, women who received the cabbage leaf application were more likely to be breastfeeding exclusively, 76 and 58 percent (35/46 us 29/50; P=0.09), and their mean duration of exclusive breastfeeding was longer (36 us 30 days; P=0.04). The greater breastfeeding success in the experimental group may have been due to some beneficial effect of cabbage leaf application, or

may have been secondary to reassurance and improved confidence and self-esteem in these mothers.

Princy Thomas and Manju Chhungani etal (2017) carried out a study to breast message a reliever for mild breast engorgement among post natal mother, New Delhi. In this study non-equivalent control group and a pretest posttest design was used. A total 30 mild breast engorgement post natal mother were selected for this study. Data were collected by pre-experimental study. One group pretest and posttest design was used and the level of breast engorgement was assessed. For three consecutive days, post natal mother were given breast message pre and posttest. There was a significant difference in the post test and breast pain level and pretest breast pain level as shown in the result in which means pre-test numerical pain rating score day 1-3 which was 0.10 with SD (0.32) with mean difference of 0.78, which was found to be statistically significant as evident from "t" value 19.7 at 0.05 level of significance. So breast massage plays a great role in relieving mild breast engorgement.

Wong. B and Koh S and Hegney, Desley, He. H (2012) conducted a study to find out the effectiveness of Cabbage leaf application on pain and harness in breast engorgements The studies qualitative including RCTs, quasi randomized trails and quasi-experimental studies. One RCT and two quasi-randomized studies and one quasi-experimental study. In one RCT after the first cabbage leaf application, fewer mothers were reporting breast engorgement through their second to fourth assessments as compared to the control group. On the second assessment a smaller portion in the intervention group thought their breasts were engorged (51 % vs 57 %, P=0.68). In one study the experimental group receiving cabbage leaf treatment

improved from a pre treatments score of 5.17 (70%) to 3.02 (20%) (P=<0.001). In addition, hot and cold compresses spread to reduce score more effectively than cold cabbage leaf (p<0.001). In one study both cabbage leaf and hot and cold compress intervention decreased numerical pain score (p<0.001) thus pain in breast engorgement in a study result to show statistically significant reduction in pain score for both room temperature 2.0 points (37 %) and child cabbage leafs 2.1 points (38 %) (p=0.0001). There was no statistical difference in mean pre and post treatment scores in room temperature and chilled cabbage leaf (p=0.84) in one study pre and post treatment score using the Bourbonnais scale showed source a statistically significant reduction in pain score 1.8 points (30%) with cabbage leaf and 2.2 points (39%) with gell pack (p=0.0001) in study was found that 80 percentage more mothers who received the cabbage leaf intervention where exclusive breastfeeding at 6 weeks (p=0.09) less mother have stopped breast feeding prior to 8 days (8.88% vs 24% p=0.09) and overall duration breast free ding was longer in the intervention group 36 vs 30 days (p=0.04%). Overall result shows that cabbage leaf treatment used on women with breast engorgement.

Jin-Yu Chiu and Meei-Ling Gau- Shu-Yu Kuo etal (2010) conducted a study of Gua-Sha Therapy on Breast Engorgement in China. A Randomized Controlled Trial designed was used for this study. A total of 54 post partum women. Result should be statistical difference between the two group of baseline body temperature, breast-engorgement, pain level and discomforting level were statistically different between the two group at 5 to 80 min after intervention (p<0.001). The results of generalized estimating equation analysis inducted that with the exception of body temperature, all variable remained more significant (p<0001) to improving engorgement symptom in the experimental group than those in the control group alter

taking related variable into account our finding empirical evidence supporting that Gua- Sha Therapy may be used as an effective technique in the man agent of breast engorgement.

Angel Akanksha Thomas and Manju Chhugani (2017) conducted a study the Effectiveness of Chilled Cabbage leaves on Breast Engorgement among postnatal mother Admitted in the selected Hospital of Delhi. Quasi Experimental design was used for this study conducted on 60 postnatal mothers, 30 in each group, admitted in Swami Day and Hospital, Shadara. A structured interview schedule was used to assess the selected sample characteristics and storr scale was used to assess the breast engorgement and data were analyzed using SPPSSIBM Version 20. The findings of the study showed that there was no significant difference between the experimental and control group with regard to pre-treatment scores of breast engorgement (p=0.2880). Comparison was done between pre-treatment and post treatment breast engorgement scores within both the groups. There was no significant difference in the posttest breast engorgement scores between both the groups (p=0.204). Both the treatments, ie., chilled cabbage leaves and routine care, ie., warm compress were effective in decreasing breast engorgement in postnatal mothers (p=0.05 and p=0.001). Routine care, ie., warm compress was found to be more effective than chilled cabbage leaves in reducing breast engorgement (p=0.001) in postnatal mothers. Chilled cabbage leaves as well as routine care, ie., warm compress, both can be used in the treatment of breast engorgement.

Powar Priyanka, Basavarj C, Ramannavar A etal (2016) conducted a study of Comparative effect of ultrasound therapy with conventional therapy on breast engorgement in immediate post-partum mothers. A randomized controlled trial design

was used for this study. A total of 80 post partum mother with breast engorgement were randomly assigned to group A (ultrasound therapy) and Group B(CONVENTIONAL THERAPY) during the study period. Conclude that ultrasound therapy added with conventional therapy helps in reduction of pain with non- tender breasts which further helps the post –partum mother to recover better from discomforts. This in turn can facilitate better breast feeding.

Apurva .A and Mahadalkar, S. Anandh (2017) conducted a study to effectiveness of ultrasound and Transcutaneous Electrical Nerve Stimulation in Postnatal Painful Breast Engorgement. Comparative Study was conducted on 30 subjects were divided into two groups. Pre consent was taken from each participant. The subjects were divided into group (TENS with conventional treatment) and group B (Ultrasound with conventional treatment). The interventions were carried out twice a day for 2 days. The outcome measures for the study were subjective which includes VAS scale, 6-point self-rated breast engorgement scale and Wong Baker;s faces pain rating scale. Results: The data was statistically analyzed using INSTAT software. The present study provide the evidence for the use of TENS and ultrasound along with conventional treatment including hot moist packs and therapeutic massage in the management of pain and tenderness and improving the lactation in painful breast engorgement.

Smriti Arora and Manju Vatsa and Vatsla Dadhkal etal (2008) prepared a study to assess and compare the efficiency of cold cabbage leaves and hot and cold compress into the treatment of breast engorgement in selected hospital New Delhi. (AIIMS). The study comprised a total of 60 mother, 30 in the experimental group and 30 in the control group. The control group received alternate hot and cold compress

and the experimental group received cold cabbage leaf treatment for relieving breast engorgement. The pre and post treatment scores of breast engorgement and pain were recorded. The data were analyzed using descriptive and inferential statistical method using the statistical software. Both the treatments ie hot and cold compress and cabbage were effective in decreasing breast engorgement and pain in post natal mother ($P<0.001$) cold cabbage and hot and cold compress were both equally effective in decreasing breast engorgement (P: 0.07) whereas hot and cold compressed were found to be more effective than cold cabbage leaves in relieving pain due to breast engorgement ($P< 0.001$) in post natal mother.

Mrs. Chaithanya Prashanth et al (2014) carried a study to effectiveness of Cabbage leaves application on Breast Engorgement Quasi experimental design was used for this study. Data was non probability purposive sampling sampling technique. A total of 24 mothers participated 12 in experimental group received routine care. The study results shows that experimental after applied mean (4.067, t:2.87, p:31.05), control group mean value was (26.067, 15.07). Statistical proved experimental group has significant. This study concluded the cabbage leave application has great improvement in treating the condition.

Joy J and Kharde SN (2016) conducted a study to evaluate the effectiveness of chilled cabbage leaves application for relief breast engorgement in volunteered postnatal mothers who are admitted in maternity ward of selected hospital in belgaum. Convenient Sampling Technique was used fro this study. The study was conducted for 30 post natal mothers. The data was tabulated and analyzed in terms of objectives of the study, using descriptive and inferential statistics. The major findings of the study on effectiveness of chilled cabbage leaves application for breast engorgement

on reducing pain and severity of breast engorgement among postnatal mothers showed the mean pre test score of postnatal women with breast engorgement before application of chilled cabbage leaves (14.86) is more than the mean post test score (1.33) after application of cabbage leaves on postnatal mothers with breast engorgement. Wilcoxon signed rank test shows that there is a significant difference between pre and post treatment scores Z=40792 p< 0.001. Hence chilled cabbage leaves application is effective in reducing pain and severity of breast engorgement.

Kathyrn L. and Roberts etal (1998) conducted a study the effectiveness of Cabbage leaf extract on breast engorgement. By using a double- blind experiment with pre test, posttest design. 21 Women received a cream containing cabbage leaf extract and 18 women received the cream supplied equal relief from engorgement. The study concluded it is recommended that location consultants encourage mother to breast feed it consultants encourage mother to breast feed it possible to relive the discomfort of breast engorgement.

LITERATURE RELATED TO EFFECT OF ALMA ALFATIR WATER COMPRESS ON BREAST ENGORGEMENT

Ms. Rekhakumari (2017) conducted a study effectiveness of hot water bag application on breast engorgement. Quasi experimental design was used for this study. Total of 63 postnatal mothers were selected for the study. In that 32 women were experimental group. 31 women were in control group. Who fulfilled the inclusion criteria Data were collected by or assigned randomly to experimental group and control group respectively the result was finding hot water bag group were initiated Majority of the mother (94%) had undergone LSCS in green cabbage leaves and(97%) in the hot water bag groups. breast feeding after 24 hours of delivery.

The homogeneity was checked in both groups by using chi-square test, fisher exact test and t, test. It was found that except the educational status, the group were homogenous in term of age (p=0.006), parity (p=0.36), Type of delivery (p=0.51), Initiation of breast feeding (p=0.68), frequency of feeding (p=0.92),duration of breast feeding(p=0.50). Postnatal day of engorgement (p=0.62).The analysis of effectiveness of green cabbage leaves vs hot water bag for reducing breast engorgement . Concluded the study finding hot water bag application can be used in reducing pain and breast engorgement.

R.Nanthini and G.Bhuvaneswari et al (2015) prepared a study to assess the effectiveness of cold cabbage leaves vs hot water application on breast engorgement among postnatal mother in Chennai. Quantitative research approach by using true experimental research was used for this study. A total of 30 post natal mothers were selected for the study in that 15 sample experimental 15 sample were the control group sample were selected by using of probability purposive sampling technique. Result of the study overall paired "t" test value was significant at the level of P< 0.001. This shows that there was significant improvement in both cabbage leaf application and hot water application. The study finding cold cabbage leaves as well as alternate hot water compress in the treatment is more effective.

Moumila manna and lily podder and sujitha Devi etal (2016) conducted a study to effectiveness of hot fomentation vs cold compression on breast engorgement among post natal mother in Pune. Using non probability purposive sampling technique. A total of 60 post natal mother for selected. They were distributed randomly in 2 groups and given therapy for three consecutive days after assessment of breast engorgement. Data collection was accomplished by interview and direct

observation by using demographic Performa, modified breast engorgement scale. Data was analyzed by using descriptive and inferential-statistics. Finding the study average reduction in pain intensity in cold compression group was 6.1 which was 4.91 in hot fermentation group. Reduction in pain intensity score of cold compression group was significantly higher than that for not fomentation group (p: 0.001). Average reduction in breast engorgement score in cold compression group was 3.6. Which was 34 in hot fomentation group. Reduction in breast engorgement score of cold compression group was not significantly higher than that for hot fomentation group (p=0.116). Conclude the study that hot fomentation was more effective in reduction of breast engorgement.

Tawheda Mohamed and Khalefa EL-saidy etal (2016) conducted a study to effect of two different nursing care approach on reduction of breast engorgement among postnatal women in Egypt. Quasi experimental research design adopted for this study. A total of 90 postnatal mothers they were randomly assigned in to two group, 45 post natal mother are warm compresses, 45 post natal mother getting cold cabbage leaves. Data were collected by using of maternal structured interviewing questionnaire, six point engorgement scales. The data analysis was using the mean age of the mothers was 26.6 ±4.3 years old more than twenty percent of each group suffered from firm and tender breast (22.2% and 28.9%).Also there was a statistically significant difference between the pre and post symptom of breast engorgement level of breast engorgement, pain score, engorgement score for both (p<.05).Conclude of this study an application of cold cabbage leaves and warm compresses are effective, also warm compresses early detection of breast engorgement.

Amanpreet Kanurand, Nidhi sagar, Mamta etal (2010) conducted a study to effectiveness of alternative hot and cold compresses cold cabbage leaves on breast engorgement pain among post natal mother. Research design was used with convenience sampling technique consisted.Atotal60 post natal mother out of 30 subjects in the experimental group were given intervention with application of alternative hot and cold compresses while 30 subjects in the experimental group 2 were given intervention with application of cold cabbage leaves. Assessment was done in term of breast consistency and breast tenderness score before intervention and at the end of each day. In this study analysis both descriptive and inferential statistics the mean breast consistency score iun experimental group had a decrease of 2.70 to 0.96.While mean score in experimental group 2 had decrease of only 2.80 to 1.50($p<0.001$).Similarly in mean breast tenderness score in experimental group had decrease of 5.73 to 1.00.W here as breast tenderness score in experimental group 2 had decrease of only 6.30 to 2.70.Thus the study concluded that application of alternative hot and cold compress more effective than application fold cabbage leaves in reducing breast engorgement. In highly effect hot application of breast engorgement.

V Resmy and Nalini and G Sumathi et al (2014) carried out the study effect of Luke warm water compresses to breast engorgement among primi parous mother at selected hospital in Chennai .This study design was used equivalent control group post test was used for this study. A total of 60 primiparaous mother were selected for this study. Sampling technique convenient. The nature of the study was briefed to participants and consent was taken for the study group along with routine care. Luke warm water (43c to 46c) was applied sponge cloth over the breast which was replaced every 5minutes for a total duration of 20 minutes. The control group received routine

care. The data analyzed descriptive statistics, inferential statistics homogeneity was maintained for the back ground variables in both groups. Comparison between the observation of the study and control group showed a significant reduction in nipple pain and breast engorgement at $p< 0.001$.The study suggest that luke warm water compresses consistency prevent nipple pain and to reduce breast engorgement.

CHAPTER III

METHODOLOGY

Research methodology is a systematic way of solving problems. This chapter depicts the description and various steps adapted to collect organize data for the present study. The study was intended to assess the effectiveness of Alma Alfatier compress on breast engorgement among postal natal women.

The research methodology include research approach, research design, setting population, sampling technique, selection tool criteria data collection tool, description tool. The procedure for data collection and plan for data analyses.

Research Approach

Research process is an orderly way of dealing with the research problem, where variable are generally studies in numerical form. Research approach used in this study was quantitative evaluate research approach.

Research Design

Research design used in this study was quasi-experimental control group pretest, post test design.

The research design is diagrammatically represented as below.

E	O_1	x	O_2
C	O_1		O_2

E - Experimental group

C - Control group

O_1 - Pre test to assess the breast engorgement

X - Intervention (Alma Alfatir Water compress over breast.)

O_2 - Post test to assess the effectiveness of Alma Alfatir water compress.

Setting Of The Study

The study was conducted in the post natal ward Sree Mookambika Medical College Hospital, Kulasekharam. It is located 30 km away from Nagercoil town. This is a 650 bedded multispecialty hospital with good infrastructure. The total number of delivery in the month of February 2017 was 204 (L.S.C.S 59, Full Term Normal Delivery 145.) Gynecological unit in Sree Mookambika Institute of Medical Science is a mother and baby friendly unit having and in Patient of 6-8 per day. Post natal ward consists of 15 beds. This unit is having all the facilities for caring mother and baby after delivery. Well trained staff nurses are available in the unit. The Postal natal ward is spacious and well equipped in this hospital.

Population

Target population : Postal natal women is Sree Mookambika Medical College Hospital, Kulasekharam.

Accessible Population : Post Natal women.

Sample : Post Natal women who had satisfied the inclusion criteria.

Sample Size : The sample size consist of 60 sample of post natal women (30 in experimental group & 30 in control group) who had moderate to severe breast engorgement.

Sampling Technique : Samples were selected based on purposive sampling technique.

Sample Selection Criteria :

Samples were selected based on the following inclusion and exclusion criteria.

Inclusion Criteria

- Postal Natal women who have undergone LSCS and moderate to severe breast engorgement.
- Post Natal women who are willing to participate in the study.
- Post Natal women with inverted nipple and cracked nipple.
- Post Natal Women whose baby died after delivery.

Exclusion Criteria

- Post Natal Women with loss of sensation and mother receiving lactation suppressants.
- Post Natal Women who have breast complication such as infection in the breast, breast abscess, mastitis.
- Postal natal women who are having post partum blues, depression and psychosis.

Data Collection Tool

The data collection tool used for the study were,

- Demographic Variable
- Obstetric Variable
- Breast Engorgement Assessment Scale.

Description Of The Tool

Section A : Demographic Variable

Part A : details with Demographic data such as age, education, food habits, type of family and area of residence.

Section B : Obstetrical Variables.

This deals with Obstetrical Variable such as order of birth, mode of delivery, post natal day, type of new born, initiation of breast feeding. Pattern of breast feeding at each time, mode of breast feeding, Type of nipple.

Section C : Breast Engorgement Assessment Scale

Breast Engorgement was assessed using 6 point breast engorgement scale devised by Hill.P.D and Humenick (1994). It was used to assess the level of breast engorgement in clinical breast assessment was done by the investigator and the findings were interpreted and scored as per the scale.

Six Point engorgement assessment scale	
Score	**Description**
1	Soft, no change in breasts
2	Slight change in breasts
3	Firm, non-tender breasts
4	Firm , beginning tenderness in breasts
5	Firm, tender
6	Very firm, very tender

Classification of score were as follows

Mild engorgement : 1-2

Moderate engorgement : 3-4

Severe engorgement : 5-6

Validity And Reliability

Content validity of tool was established on the basis of the opinion of five experts that is from one obstetrician and four obstetrics and gynecology nursing personnel. The necessary suggestion and modification was incorporate in the final preparation of tool.

Reliability

The reliability of the tool was identified by test – retest method. spearman rank correlation formula was used to test reliability. The r value 1.00. Hence the tool was reliable.

Pilot Study

In order to find out the feasibility of the study a pilot study was conducted in Sree Mookambika Medical College Hospital with 6 sample (3 in experimental group and 3 in control groups)

Pilot study was conducted for a period of one week. 6 patient who fulfilled the selection criteria were selected and the purpose of the study was explained to the subjects and ensured the confidentiality of their response.

The pilot study helped in testing the reliability, feasibility and practicability of the tool and designed methodology. The tool was assessed among the study population and was found clear pretest was done for both group with 72 hrs after delivery using the 6 point engorgement scale, Alma alfatir water compress over the breast applied to the experimental group. Then posttest was done for both the group at the same day with the same tool.

Since the adequacy of the tool was established through the pilot study, final study was conducted with out any change in the tool or technique.

Data Collection Procedure

Data collection was done from February 1/2/2017 to 3/3/2017 for 1 month. The study subjects were selected by purposive sampling technique obtained their willingness to participate in the study and there were both experimental group and control group. The purpose of the study was explained in detail to the selected subject and the confidentiality of their response was ensured. Both group were pretested with in 72 hrs after delivery using the breast engorgement 6 point scale. After pretesting Alma Alfatir water compress was applied to experimental group. The procedure was explained to the patient. Exposed the breast Alma Alfatir water compress over the breast was given compression. Compress was given 20 minutes over each breast at an interval of 8 hours. (9 am - 4 pm) 2 times a day. Then both breast were cleaned. Post test was done for experimental group at the same day with the help of the same 6 points breast engorgement scale.

On the other hand in the control group, post test was done daily for 3 days by using the same breast engorgement scale.

Plan For Data Analysis

The statistical method using for analysis were descriptive statistics such as frequency, percentage, mean, standard deviation analyzed by using ‘t’ test, and chi square test.

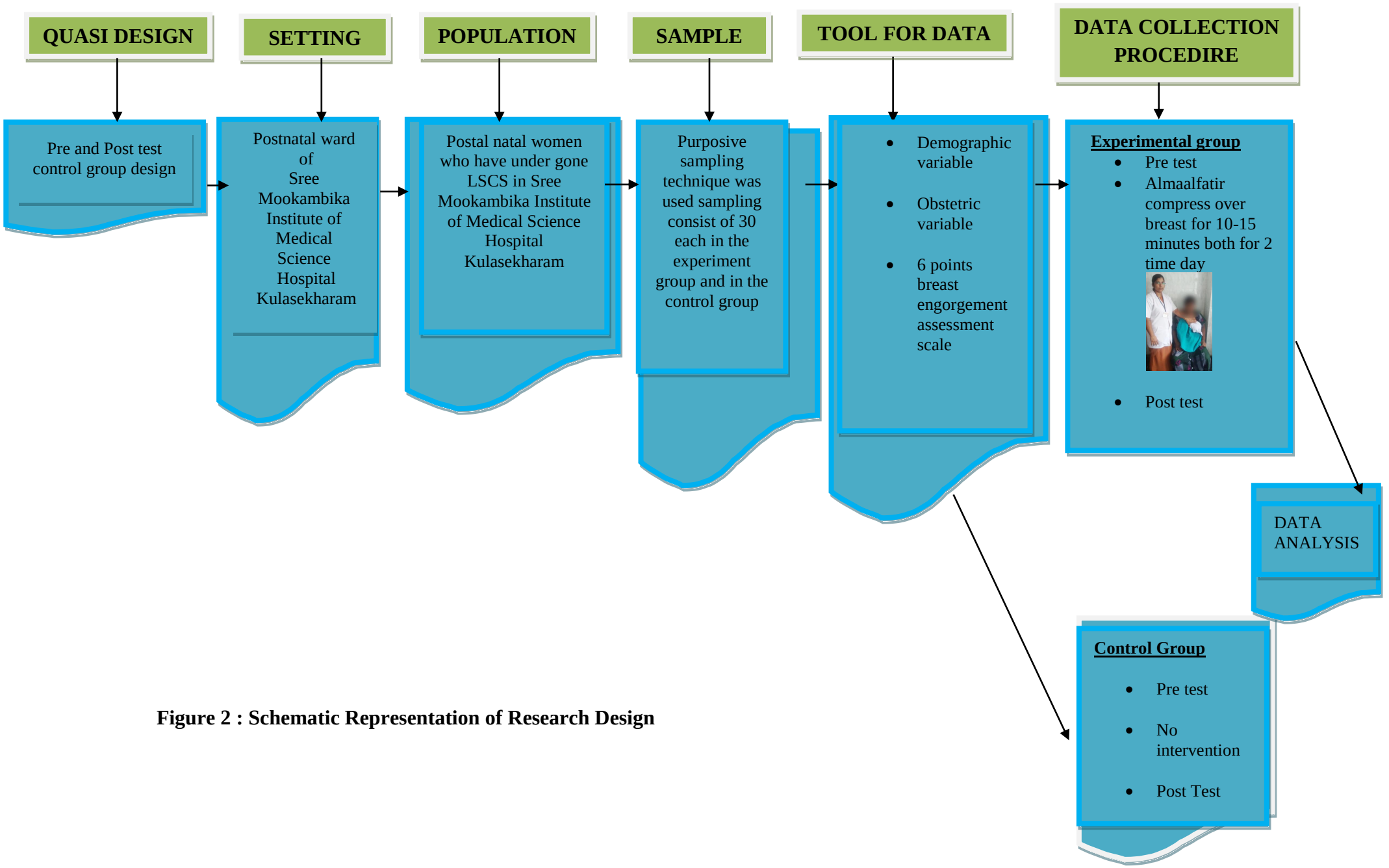

Figure 2 : Schematic Representation of Research Design

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the description of statistical analysis & interpretation of data. Analysis and interpretation of data is the most important phase of the research process when involves the computation of certain measures along with searching for pattern of relationships that exist among data groups. Here collected data are analyzed & interpreted of data include compilation, editing, coding, classification & presentation of data.

The purpose of analyzing the data collected in a study is to describe the data in meaning full terms as the data collected does not answer the research questions or test research hypothesis. The data used is to be systematically analyzed so that trends and patterns of relationship can be detected.

The study subjects were analyzed in terms of percentages, mean and standard deviation. The statistics were interpreted by the test of significant namely unpaired t test and chi-square test.

The collected data was organized, tabulated, summarized and analyzed based on the objectives and hypothesis by using descriptive and inferential statistical method.

Presentation of Data

The data analyzed are presented under the following section

Section-A This section deals with the distribution of the study subjects based on their demographic variables.

Section-B This section deals with distribution of the study subject based on their obstetrical variables.

Section-C This section deals with assessment of level of breast engorgement.

Section-D This section deals with the comparison of pre test & posttest score between experimental group and control group.

Section-E This section deals with effect of Alma Alfatier water on breast engorgement.

Section-F This section deals with association between demographic variable and breast engorgement among Post Natal Women.

Section-G The section deals with association between obstetrical variables and the breast engorgement among post natal women.

Section A: Demographic variables.

This section deals with the distribution of the study subjects based on their demographic variables such as age, education, food habits, type of family and area of residence.

Table I:

Frequency and Percentage distribution of demographic variables (N: 60)

S.No	Demographic Variables	Experimental Group		Control Group	
		f	%	f	%
1	Age of the mother				
	a) 20-25 years	12	40	11	36.7
	b) 26-30 years	15	50	16	53.3
	c) 31-35 years	3	10	3	10
	d) more than	0	0	0	0
2	Education				
	a) Illiterate	0	0	0	0
	b) Primary School	0	0	0	0
	c) High school	2	6.67	2	6.7
	d) Higher secondary school	10	33.33	9	30
	e) Collage	18	60	19	63.3
3	Food habits				
	a) vegetarian	3	10	4	13.3
	b) non- vegetarian	27	90	26	86.7

Table 1 Continues....

4	Type of family				
	a) nuclear family	14	53.33	15	50
	b) joint family	12	40	13	43.3
	c) extended family	2	6.67	2	6.67
5	Area of residence				
	a) Urban	12	40	11	36.7
	b) Rural	18	60	19	63.3

Data present on table 1 shows that in the demographic variables that the experimental group, majority of the sample had 50% were in the age group age group 25-30 years and 40% age group of 20- 25 years, 10% samples were in age group above 30-35 years and none of them were above 35 years. In control group majority of the samples had that 53.33% were in the age group of 26 - 30 years .

Data present on table 2 shows that in the experimental group the majority of the sample 66% had college education. In control group majority of the sample 63.3% had college education.

Data present on table 3 shows that in the experimental group the majority of the sample had in food habits (90%) were in had non vegetarian (10%) in vegetarian . In control group were had non- vegetarian (86.7%) were in the had vegetarian (13..3%).

Data presented on table 4 shows that in the experimental group with regards of type of family nuclear family (53.33%) were in joint family (40%) were in extended

family (6.67%). In control group majority sample nuclear family (50%) were in joint family (43.3%) were in extended family (6.7%).

Data present on table 5 shows that in the experimental group with regards of area of residence in living rural are (60%) and were living in urban (40%). In control group majority of the sample selected (63.3%) living in rural area (36.7%) living urban area.

The above findings are represented as bar diagram from Figures 3 a to 3 e

- Distribution of samples according to the Age is represented as Bar Diagram in Figure 3 a.
- Distribution of samples according to the Education is represented as Bar Diagram in Figure 3 b.
- Distribution of samples according to the Food Habits is represented as Bar Diagram in Figure 3 c.
- Distribution of samples according to the Type of Family is represented as Bar Diagram in Figure 3 d.
- Distribution of samples according to the Area of Residence is represented as Bar Diagram in Figure 3 e.

Section B: Obstetrical variables.

This section deals with the distribution of study subjects based on their obstetrical variables such as order of parity, mode of delivery, postnatal day, type of newborn, type of nipple, initiation of feeding, frequency of feeding, duration of feeding, position adapted for feeding, pattern of breast feeding a teach time, mode of breast feeding

Table 2 Percentage, Distribution of Obstetrical Variables (N: 60)

SNO	Obstetrical detail	Experimental group		Control group	
		f	%	f	%
1	Order of parity				
	a) One	14	46.67	13	43.3
	b) two	12	40	14	46.7
	c) more than two	4	13.33	3	10
2	Mode of delivery				
	a)vaginal delivery	12	40	11	36.7
	b)vacuum delivery	0	0	0	0
	c) forceps delivery	7	23.33	8	26.6
	d)caesarean section	11	36.67	11	36.7
3	Post natal day				
	a)4-6 days	19	63.33	18	60
	b)7-9 days	11	36.67	11	40
	c)More than 9 days	0	0	0	0
4	Type of new born				
	a) term new born	30	100	30	100
	b) pre term new born	0	0	0	0

Table 2 continues .....

5	Type of nipple				
	a) normal	3	10	4	13 .3
	b) flat	18	60	17	56.7
	c) inverted	6	20	6	20
	d) cracked	3	10	3	10
6	Initiation of breast feeding				
	a)with in 2 hours	19	63.33	18	60
	b)with in 2-4 hours	11	36.67	11	40
	c)more than 4 hours	0	0	0	0
7	Frequency of feeding				
	a)Every 2 hours	20	66.67	19	63.33
	b) As demand	10	33.3	11	36.67
8	Duration of feeding				
	a)Till baby stops feeding	30	100	30	100
	b)For 15 minutes	0	0	0	0
	c)For 10 minutes	0	0	0	0
	d)For 5 minutes	0	0	0	0
9	Position adapted for feeding				
	a)Sitting	30	100	30	100
	b)Side lying	0	0	0	0

Table 2 continues .....

10	Pattern of breast feeding at each time				
	a)Feeding on one side breast	0	0	0	0
	b)Feeding on both breast	30	100	30	100
11	Mode of breast feeding				
	a)Direct breast feeding	30	100	30	100
	b) Expressed breast feeding	0	0	0	0

Order of parity in the experimental group, majority of sample had 46.67% were in primi mother 40% . In control group majority the sample had 46.7% were in multi gravida mother 43.3% mother were in primi 10% mothers .

Regarding mode of delivery, in experimental group majority sample had 36.67% had caesarean section, were in 40% mothers had vaginal delivery 23.3% mothers had forceps delivery. In control group majority of the sample had 36.7% were having vaginal delivery 26.6% mothers had forceps delivery .

With regards of post natal day in experimental group majority of the samples 63.3% were in 4-6 post natal day. In control majority of the sample were in 60% mothers, were in 4-6 post natal day 40%.

In type of new born in experimental group 100% term new born in control group 100% in term new born.

About the type of nipple in experimental group mothers in 60% mothers in flat nipple 20% mothers in inverted nipple 10% mothers in cracked nipple 10% mothers in normal nipple. In control group mothers in 56.7% flat nipple 20% inverted nipple 13.3% normal nipple 10% cracked nipple.

Initiation of breast feeding in experimental group were feed in 63.3% with in 2 hours 36.67% were feed in between 2-4 hours none of them mothers in more than 4 hours. In control group mothers were feed in 60% within 2 hours 40% were feed in between 2-4 hours none of the mothers have no feed in more than 4 hours.

Regarding frequency of breast feeding in experimental group, 66.67% mother every second hourly feeding 33.33%mothers as demand feed. In control group mothers 63.33%every second hourly 36.67%mothers as demand feeding.

About duration of feeding in experimental group, 100% mothers till baby stop feeding .In Control group 100% mothers till baby stop feeding

Regarding Position adapted for feeding time, in experimental group 100% mother adapted in sitting position. In control group 100% mothers adapted in sitting position.

About pattern of breast feeding each time experimental group in 100% mothers feed in both breast . In control group 100% mothers feed in both breasts.

In mode of breast feeding in experimental group 100% fed the baby by direct breast feeding. In control group 100% fed the baby by direct breast feeding.

The above findings are represented as bar diagram from Figures 4 a to 4 k

- Distribution of Samples According to Order of Parity, Mode of Delivery, Post Natal Day, Type of New Born, Type of Nipple, Initiation of Breast Feeding, Frequency of Feeding, Duration of Feeding, Position Adapted for Feeding, Pattern of Breast Feeding at each Time and Mode of Breast Feeding.

Section C: Pretest and Post test Level of Breast engorgement

This section deals about pretest and post test level of breast engorgement in experimental group and control group.

Table 3 (a)

Frequency and percentage distribution of pretest level of breast engorgement (N=60)

Group	Day	Level of Breast engorgement					
		Mild		Moderate		Severe	
		f	%	f	%	f	%
Experimental Group	1	0	0	18	60	12	40
	2	0	0	30	100	0	0
	3	0	0	30	100	0	0
Control Group	1	0	0	0	0	30	100
	2	0	0	15	50	15	50
	3	0	0	15	50	15	50

In experimental group on first day 60 % sample had moderate breast engorgement and 40% samples had severe breast engorgement. On second and third day, 100% of samples had moderate breast engorgement.

In control group on first day 100% samples had severe breast engorgement. On second and third day 50% samples had moderate breast engorgement and 50% samples had severe breast engorgement.

Table 3 (b)

Frequency and percentage distribution of post test level of breast engorgement (N=60)

Group	Day	Level of Breast engorgement					
		Mild		Moderate		Severe	
		f	%	f	%	f	%
Experimental Group	1	0	0	30	100	0	0
	2	0	0	30	100	0	0
	3	11	36.6	19	63.6	0	0
Control Group	1	0	0	0	0	30	100
	2	0	0	10	33.3	20	66.6
	3	0	0	30	100	30	100

In experimental group, on first day and second day 100 % sample had moderate breast engorgement. On third day 36.6% samples had mild breast engorgement and 63.3% had moderate breast engorgement.

In control group, on first day 100% samples had severe breast engorgement and second day 33.3% samples had moderate breast engorgement and 66.6% samples had severe breast engorgement. On third day 100% samples had severe breast engorgement.

Table 3 (c)

This section deals with comparison of breast engorgement in experimental and control group (Day 1,2,3)

Comparison of breast engorgement in experimental and control group (N=60)

Group	Day	Pretest						Post test					
		Mild		Moderate		Severe		Mild		Moderate		Severe	
		f	%	f	%	f	%	f	%	f	%	f	%
Experimental Group	1	0	0	18	60	12	40	0	0	30	100	0	0
	2	0	0	30	100	0	0	0	0	30	100	0	0
	3	0	0	30	100	0	0	11	36.6	19	63.3	0	0
Control Group	1	0	0	0	0	30	100	0	0	0	0	30	100
	2	0	0	15	50	15	50	0	0	10	33.3	20	66.6
	3	0	0	15	50	15	50	0	0	30	100	0	0

This study reveals the following findings

Pre test findings

On first day, 60 % and 100% of samples had moderate breast engorgement in control group and experimental group respectively.

On second and third day, 100 % samples in experimental group and 50% samples in control group had moderate breast engorgement.

Post test findings

On first day, 100% samples are moderate breast engorgement in experimental groups 100% samples had severe breast engorgement.

On second day, 100% samples had moderate breast engorgement, in control group 66.6% samples had severe breast engorgement.

On third day, 63.3% samples had moderate breast engorgement and 100% samples had moderate breast engorgement in control group.

Section D : Comparison of pre test and post test mean score of Breast Engorgement

This section deals with pre test and post test score between experimental and control group.

Table 4 (a)

Comparison of the pre test and post test mean score, SD and t test value of breast engorgement among postnatal women in experimental group on (day 1,2,3)

Day	Pre test		Post test		Mean difference	df	t test
	Mean	SD	Mean	SD			
1	5.6	.78	4.66	.69	.94	29	3.96*
2	4.54	.70	3.66	.72	.88	29	3.28*
3	3.79	.68	2.63	.70	1.16	29	4.38*

***** Significant at $p<0.05$

Day 1

In the experimental group pre test mean score was 5.6 with SD .78 and post test mean score was 4.66 with SD.69, the mean difference was 0.94,"t"test value3.96is significance at $p<0.05$level.

Day 2

In the experimental group pre test mean score was 4.54 with SD .70 and post test mean score 3.66 with SD .72, the mean difference was0.88,"t"test value3.28 is significance at $p<0.05$level

Day 3

In experimental group pre test mean score3.79 with SD .68 the post test means score was2.63 with SD.70, the mean difference was 1.16 "t"test value 4.38 I significance at $p<0.05$level

Table 4 (b)

Comparison of the pre test and post test mean score SD and 't' test value of breast engorgement in control group (Day 1,2,3)

DAY	Pre test		Post test		Mean difference	df	t test
	Mean	SD	Mean	SD			
1	5.56	.73	5.50	.70	.06	29	.41
2	4.9	.96	4.66	.65	0.24	29	.71
3	4.35	.89	3.7	.71	0.65	29	2.65

* Significant at $p<0.05$

Day 1

In control group pre test mean score was5.56 with SD.73 and post test score was 5.50 with SD.70 the mean difference was 0.06,t" test value0.41 ,$p>0.05$. Hence no difference between pre test and post test score.

Day 2

In control group pre test mean score was4.9 with SD.96, post test mean score was 4.66 with SD score .65, the mean difference 0.71.

Day 3

In the control group pre test mean score was4.35with SD.89 and post test score mean was3.7 with SD .71.

Section E : Effectiveness of Alma Alfatir water compress on breast engorgement

This section deals with effectiveness of Alma Alfatir water compress on breast engorgement

Table 5

Effectiveness of Alma Alfatir water compress on breast engorgement (N=60)

Day	test	Group	Mean	SD	Mean difference	t test	df	Level of significance
1	Pre test	Experimental	5.60	.78	0.04	. 21	58	p>0.05
		control group	5.56	.73				
2	Post test	Experimental	2.63	.70	1.07	5.63*	58	P<0.05
		control group	3.7	.71				

* Significant at P<0.05

Above the table 5 reveals that experimental group post test mean score is 2.63 and control group post test mean was 3.7 and the 't' value obtained was 5.63 which is significant at p <0.05.

Section F: Association between pre test level of breast engorgement and demographic variables in experimental and control group

This section deals with demographic variables experimental and control group Age, Education, Food habits, Type of family and Area of Residence

Table 6 (a)

Association between pre test level of breast engorgement of post natal women and selected demographic variables in experimental group

Demographic variables	Moderate		Severe		λ 2	Value
	f	%	f	%		
Age of the mother						
a)20-25 years	5	16.66	7	23.33		
b) 26-30years	7	23.33	8	26.66	5.47	df=3 p>0.05
c)31-35 years	0	0	3	10.00		
d) more than 35 years	0	0	0	0		
2) Education						
a) illiterate	0	0	0	0		
b) primary school	0	0	0	0		
c)high school	0	0	2	6.66	6.99	df 2, p>0.05
d)higher secondary	1	6.66	8	26.66		
e) college	10	33.33	8	26.66		

Table 6 continues...

3)Food habits						
a)vegetarian	2	6.66	1	3.33	0.33	df 1,p>0.05
b) non-vegetarian	10	33.33	17	56.66		
4)Type of family						
a) nuclear family	2	6	14	46.6		
b) joint family	8	26.66	4	13.33	11.6	df 2, p<0.05
c) Extended family	2	6.66	0	0		
5)Area of residence						
a) Urban	4	13.33	8	26.66	.37	df 1, p>0.05
b) Rural	8	26.66	10	33.33		

Data presented table 6 shows that there is significant association between breast engorgement and demographic variables such as education and type of family.

Table 6 (b)

Association between demographic variables and breast engorgement demographic variables in the control group

Demographic variables	Moderate		Severe		λ2	df	5% level of significant
	f	%	f	%			
1)Age of the mother							
a)20-25 years	4	13.33	7	23.33			
b) 26 -30 years	9	30	6	23.33	5.86	2	df 2 p>0.05
c)31-35 years	0	0	3	10			
d) more than 35 years	0	0	0	0			
2) Education							
a)Illiterate	0	0	0	0			
b)Primary	0	0	0	0			
c)High school	2	6.66	2	6.66			
d)higher secondary school	2	6.66	7	23.33	6.83	2	df 2 p <0.05
e) college	11	36.66	7	26.66			

Table 6 (b) continues...

3)Food habits							
a) vegetarian							
b) non-vegetarian	2	6.66	2	6.66	0.08	1	df 1 p>0.05
	11	36.66	15	50			
4)Type of family							
a)nuclear family	2	6.66	13	43.33	10.10	2	df 2 p<0.05
	9	30	4	13.33			
b) Joint family	2	6.66	0	0			
c) Extended							
5) Area of residence							
a) urban	2	6.66	9	30	4.47	1	df 1 p<0.05
b) Rural	11	36.66	8	26.66			

Findings

The study was to find out association between the pretest level of breast engorgement among post natal mother with selected demographic variables such as type of family and area of residence.

Section G : Association between breast engorgement and obstetrical variables

This section deals with breast engorgement and obstetrical variables in experimental groups and control group Order of parity, Mode of delivery, Post natal day, Type of New born, Type of nipple, Initiation of breast feeding, Frequency of Feeding, Duration of feeding , Position adapted for feeding, Pattern of breast feeding at each time and Mode of breast Feeding

Table 7 (a)

Association between pre test levels of breast engorgement of post natal women selected obstetrical detail in experimental groups (N=30)

Obstetrical	Moderate		Severe		λ value	df	P value
Order of parity					2.78	2	p>0.05
a)1	4	13	7	23			
b)2	5	16	10	33			
c) more than 2	3	10	1	3			
2) Mode of delivery							
a) vacuum delivery	0	0	0	0			
b)vaginal delivery	7	23	5	16	3.97	2	p>0.05
c)Forceps delivery	3	10	4	13			
d)caesarean section	2	6	9	30			

Table 7(a) continues.....

3)Post natal day							
a) 4-6 days	9	30	10	33			
b) 7-9 days	3	10	8	26	1.17	1	p>0.05
c)More than 9 days	0	0	0	0			
4)Type of newborn							
a) Term new born	0	0	0	0	0	0	0
b) Pre term new born	0	0	0	0			
5)Type of nipple							
a) Normal	3	10	0	0			
b) flat	5	16	13	43	10.68	3	P<0.05
c)inverted	4	13	2	6			
d) cracked	0	0	3	10			

Table 7(a) continues.....

6) Initiation of breast feeding							
a) with in 2 hours	8	30	10	33	1.17	1	P<0.05
b)Between 2-4 hours	3	10	8	26			
c)More than 4 hour	0	0	0	0			
7) Frequency of feeding							
a)Every 2 hours	11	36	9	30	5.92	1	P<0.05
b) As demand	1	3.3	9	30			

The study was to find out the association between the pre test level of breast engorgement among post natal women with selected obstetrical variables such as type of nipple, frequency of feeding. There is significance association between the level of breast engorgement and selected obstetrical variable. So the research hypothesis was accepted.

Table 7 (b)

Association between pre test levels of breast engorgement of post natal Women obstetrical variables in control group

Obstetrical variables	Moderate		Severe		λ value	df	P value
	f	%	f	%			
1) Order of parity							
a) one	6	20	7	23	3.13	2	p>0.05
b) two	4	13	10	33			
c) more than two	3	10	0	0			
2)Mode of delivery							
a)vaginal delivery	7	23.3	4	13			
b)Vacuum delivery	0	0	0	0	4.18	2	p>0.05
c)Forceps delivery	3	10	5	16			
d) caesarean section	3	10	8	26			
3)Post natal day							
a) 4-6 days	10	33	8	26	2.73	1	p>0.05
b) 7-9 days	3	10	9	30			
c) More than 9 days	0	0	0	0			
4) Type of new born							
a) term new born	0	0	0	0	0	0	0
b) Pre term new born	0	0	0	0			

Table 7 (b) Continues .....

5)Type of nipple							
a)Normal	4	13	0	0			
b) Flat	6	20	11	36	10.68	3	P<0.05
c)Inverted	3	10	3	10			
d) cracked	0	0	3	10			
6)Initiation of breast feeding							
a) with in 2 hours	10	33.3	8	226.6			
b)With in 2-4 hours	3	10	9	30	2.73	1	p>0.05
c) More than 4 hours	0	0	0	0			
7) Frequency of feeding							
a) Every 2 hourly	11	36.6	8	26.6	4.47	1	P<0.05
b) As demands	2	6.6	9	30			

The study was to find out the association between the pre test level of breast engorgement among post natal women with selected obstetrical variables such as type of nipple and frequency of feeding.

There is a significance association between the level of breast engorgement selected obstetrical variables so the research hypothesis was accepted

CHAPTER V

RESULT AND DISCUSSION

This chapter gives a brief account of the presents study including result and discussion compared with some of the relevant studies done in different setting

The present study was undertaken to assess the effectiveness of Alma Alfatir water compress on breast engorgement among post natal women. In Sree Mookambika Medical college Hospital, Kulasekharam. Quasi experimental design was adopted with two group pre and post design for the study. The level of breast engorgement was assessed by 6 point engorgement scale. The result and discussion of the study are based on the findings obtained from the statistical analysis.

Objectives of The study

- To assess the breast engorgement before and after Alma alfatir water application among post natal women.
- To evaluate the effect of Alma alfatir water compress on breast engorgement among post natal women.
- To associate between the level of breast engorgement and selected demographic variables of post natal women in experimental group.

Distribution of Selected Characteristics of Study Subjects

The demographic variables of samples were the age, education, type of family, food habits, area of residence, and order of parity, post natal day, frequency of breast feeding and type of nipple.

The study finding reveal that in the experimental group of the samples were in the age the study finding reveal that in the experimental group 40% of the samples were in the age group of between 20-25years 50% of the sample were in the age group between 26-30years,and the control group37.7% were in the age group of 20-25 years53.3% were in the age group of 31-35 years 10%.The percentage distribution based on education reveals that in the experimental group high school 6.67% were in the 33.3% were in higher secondary school, were in the 60% of the sample were in college education, in control group were in the sample 6.7% high school 30% were in higher secondary 63.3% were in the college education. Among the sample in experimental group 10%were in vegetarian 90% were in non-vegetarian, in control group were in 13.3% vegetarian 86.7|%were in non –vegetarian.

Among the total sample in the experimental group53.33%werein nuclear family and were in 40% joint family 6.67% were in extended family, in control group 50% were in nuclear family 43.3% were in joint family 6.7% were in extended family. While considering the area of residence 40% were in urban 60% were in rural in control group considering 36.7% in urban 63.3% were in rural

Among the total sample were in experimental group 46.67% in primi mother 40% were in second gravida mother 13.33% were in multi parity in control group43.3% were in primi mother 46.7% were in second gravida 10% were in multi parity. Among the sample of mode of delivery40% were in normal vaginal delivery 23.33% were in forceps delivery 36.67% were in caesarean section in control group 36.7% were in caesarean section. Postnatal day 63.33% were in 4-6 days 36.67% were in 7-9 days in control group 60% 4-6 days 40% were in 7-9 days.

Among the type of new born in experimental group100% were in term new born in control group 100% in term newborn.

About the type of nipple in experimental group10% were in normal nipple 60% were in flat nipple 20% were in inverted nipple 10% were in cracked nipple, in control group sample were in 56..7% flat nipple 13.3% were in normal nipple 20% were in inverted nipple 10% were in cracked nipple. about the total sample of initiation of breast feeding in experimental group 63.33% were in with in 2-4 hours in control group 60% were in with in 2-4 hours, frequency of feeding in experimental group66.67% were in every 2 hourly 33.33% were as demand feed in control group 63.33% were in every 2 hours 36.67% as demand.

The study finding of the 60 sample were discussed based on the objectives of the study

The first objectives of the study was to assess the breast engorgement before and after Alma Alfatir compress among post natal women the study reveals that experimental group pre test and post test square. This study reveals that after Alma Alfatir water compress there was a reviews breast engorgement in experimental group pre test mild engorgement 23.33%, moderate engorgement 33.33%, severe engorgement 43.33% in post test mild 16.66% moderate 50 severe 10%. Day 2 in post test mild breast engorgement 36.60% moderate breast engorgement 26.66%, severe 6.66%. Day 3 pre test score mild breast engorgement 36.66%, moderate breast engorgement 26.66%, severe 6.66%. In post test mild 16.66%, moderate 23.33%, severe 3.33%. In control group Day 1 pres test mild breast engorgement 20%, moderate breast engorgement 40%, severe breast engorgement 40%, In post test mild breast engorgement 23.3%, moderate 36.66%,

severe 40%. Day 2 Post test score is mild breast engorgement 30%, moderate 33.33%, severe 36.66%. Day 3 post test score mild breast engorgement 30%, moderate 30%, severe 33.33%. the study finding was congruent with the study conducted by Moumita Manna, Lily Poder etal(2016). The study finding shows among the postnatal mother before and after hot fomentation mean score 5.5 SD±1.3.

The second objective of the study was to evaluate the effect of Alma Alfatir water compress on breast engorgement among post natal women. This study reveal that experimental group day 1 and day 3 (effect of Alma Alfatir compress.) pre test experimental group mean 5.60 , SD, 78 mean difference 0.04 table value .21 df 58 calculated value 2.04. Pretest control group mean 5.56 SD .73 mean difference 0.04 table value. In experimental group post test mean scores 2.63 SD to mean difference 1.07 tables value 5.63 df 58 calculated value 2.0 post test control group mean 3.7 SD .71 mean difference 1.07 table value 5.63 df 58 calculated value 2.0.

The study finding was congruent with the study conducted by Resmy. V, S.J. Nalini etal(2014) The study findings shows that the humanity was maintained the back ground variables in both group this study suggests that luke warm water empress consistently reduce breast engorgement.

Third objectives of the study was to associate between the level breast engorgement and selected group variables such as age, education, food habits type of family and type of residence.

This study findings reveals that there is significant association between level of breast engorgement education, type of family and area of residence. There is no association found between age, and education.

This study findings reveals that there is significant association between level of breast engorgement in obstetrical variables type of nipple, and frequency of feeding. There is no association between, order of parity, mode of delivery, post natal day, initiation of breast feeding.

The study finding was congruent with the study conducted by Moumita manna, lily padder etal (2016). The study findings shows that the age group of post natal mother were 24 – 29 days and 56.7% and mother were 31-35 years 6.7%.

The study finding was congruent with the study conducted by Moumita Manna. Lily poder etal (2016). The study findings shows that the education status of post natal mother were in secondary education 30%.

The study finding shows that the order of parity of post natal mother were in primi women 50% and more than two child mother were in 13.3.

This study finding was congruent with the study conducted by Tawheda Mohamed Khalesfu et al (2016). The study finding shows that the mode of delivery caesarean section 37.8.

The study finding shows that the post partum days were in 3-5 days 64.4%.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATIONS, LIMITATION AND RECOMMENDATION

This chapter gives a brief account of the presents study along with the summary of the findings, conclusion, and limitations of the study, implications, and recommendations of the study.

Summary

In this contest the pre test study attempt to assess the effectiveness of alma alfatir water compress on breast engorgement among postnatal women in Sree Mookabika College Hospital, Kulasekharam, Kanaykumari District.

The present study approach was quantitative approach. The research design was quasi experimental pre test post test design.

The study was conducted in Sree Mookambika Medical College Hospital at Kulasekaram in Kanyakumari district. The findings of the study revealed that the study was feasible and practicable.

The researcher adopted a quantitative evaluate approach with pre and post test designs. The study was done on Sree Mookambika Medical College Hospital at Kulasekharam. Total number of inpatient per day for obstetrics is about 8 and the number of outpatient per month is approximately 300-400. Postnatal ward is spacious and well equipped.

Pretest was estimated by using the 6 point engorgements scale. 60 postnatal women has breast engorgement out of that 30 were selected in experimental group, 30 were selected in control group by using purposive sampling technique for this study. All the subject in experimental group within 72 hours. After delivery were applied with Alma Alfatier over breast for a period of 3 days. Each breast is applied 15 to 20 minutes with the interval of 8 hours. (9 am-4 pm) two times a day. At the same day post test was conducted among the sample by using 6 point scale, every day post test was also done for the control group with out intervention. The collected data were analyzed based on descriptive an inferential statistics.

Objectives of the Study:

- To assess the breast engorgement before and after Alma Alfatier application post natal women.
- To evaluate the effect of Alma Alfatir water compress on breast engorgement among post natal women.
- To find the association between the level of breast engorgement and selected demographic variable such as Age, Education, Food habits, Type of family, Area of residence post natal women in experimental group.

Hypothesis

- H1: There is a significant reduction in breast engorgement score in the experimental group after Alma Alfatir water application than in control group.

- H2: There is a significant association between the degree of breast engorgement and the selected demographic variables Age, Education, Food habits, Type of family and Area of residence.

- H3: There is a significant association between the degree of breast engorgement and the selected obstetrical variables such as Order of parity, Mode of delivery, Post natal day, Type of new born,, Type of nipple, Initiation of breast feeding, Frequency of feeding, Duration of feeding, Position .adapted for feeding, Pattern of breast feeding at each time and Mode of breast feeding

Major Findings

This study reveals that a significant decrease in post test breast engorgement mean score on the 2nd and 3rd day at $p<0.05$ was seen in experimental group. The mean score for the 2nd day was 3.66 with the SD 0.72 for the experimental group and 4.66 with the SD 0.65 for the control group on the 3rd day the means score for the experimental group was 2.63 with the SD 0.70 and the control group was 3.7 with the SD of 0.71. Hence Alma Afatir water compress was effective in reducing severity breast engorgement .

Conclusion

The conclusion drawn from the finding of the are as follows.

1) Alma Alfatir water compress over breast are found to be and effective nursing intervention in reduce breast engorgement.

2) Alma Alfatir water compress are found to have no side effects when compared with other pharmacological treatment.

3) Samples satisfaction is very much higher in this intervention.

4) The findings of the study enlighten the fact that Alma Alfatir water compress can be used as a cost effective nursing intervention in decreasing the breast engorgement.

Nursing implication

The findings of the study reveal the implication on nursing practice, nursing education, nursing research and nursing administration.

Nursing Administration:

1) The result of the study encourages the nurse administration to conduct. In service education programs on various typed of non-pharmacological treatment to decrease the breast engorgement.

2) This helps the nurse administrator to develop and provide and effective non-pharmacological measure for reducing breast engorgement.

3) Nurse administrators can create awareness among nurses that Alma Alfatier water compress over breast is a very good cost-effective nursing intervention to reducing breast engorgement.

Nursing Education:

This study can motivate student nurse to explore new strategies for effective reducing of breast engorgement in post natal women.

1) The research report can be kept in library for reference of nursing personal and other health care professionals.

2) The nurse educator can take independent decision based on principles of health care.

3) Nurse educator can train and encourage the student nurse to implement Alma Alfatier water compress over breast as a non-pharmacological management.

Nursing Practice:

1) Alma Alfatir water compress is a safe and better modality which brings a higher level of satisfaction among post natal women.

2) This intervention could bring benefits to the postnatal women who are having breast engorgement.

3) It also brings a shot term effect and higher level of promotion of breast engorgement, thus the samples feels better and can avoid complication.

Nursing Research:

The nursing implication of the study lies in the scope for expanding the quality of nursing service. In this area of evidence based practice, publication of these studies will take nursing to a new horizon.

1) Nurse researcher can do various studies related to effectiveness of Alma Alfatier water compress for reducing breast engorgement among post natal women.

2) A experimental study can be done to determine the effectiveness of Alma Alfatier water with other intervention.

3) Similar study can be conducted on a large sample soil could be generalized.

Limitation:

1) The sample size of postnatal women was 60 and hence generalization is not possible.

2) The data collection perfect was only month.

3) Extraneous variables are controlled to some extent only.

Recommendation:

1) The study may be replicated with randomization in selection of a large smple.

2) Nurse researcher can do studies related to other type of alternative therapies in reducing breast engorgement.

3) A study can be conducted by including more number of variable and at different geographic location.

4) The study can be conducted to compare the reduce of breast engorgement among post natal women in experimental group and control group in Sree Mookambika Institute of Medical Science.

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APPENDIX - A

SREE MOOKAMBIKA COLLEGE OF NURSING

(Approved by the Goverment of Tamil Nadu & Recognised by Indian Nursing Council, New Delhi, Tamil Nadu state Nurses & Midwives Council, Chennai.)
Affiliated to The Tamil Nadu Dr. M.G.R. Medical University, Chennai.

PADANILAM WELFARE TRUST, V.P.M.HOSPITAL COMPLEX, PADANILAM, KULASEKHARAM, K.K.DIST., TAMIL NADU, PIN : 629 161
Phone : 04651 - 280743, 280866, 280742, 280745

Date : 16-08-2016

ETHICAL COMMITTEE CLEARANCE

Lr. No.

To

Mrs. Dhanya. M,

I YR .M.Sc (N),

Sree Mookambika College of Nursing,

Kulasekharam.

Ref: Research Topic: "A Study to assess the effectiveness of alma alfatir water compress on breast engorgement among postnatal mother in Sree Mookambika Medical College Hospital at Kulasekharam, Kanyakumari District".

Sub: Approval of the above reference study .

Dear Dhanya. M,

Ethics committee of Sree Mookambika College of Nursing, Kulasekharam reviewed and discussed the study proposal documents submitted by you related to the conduct of the above referenced study in the meeting held on 16-08-2016.

The following ethical committee Members were present at the meeting held on 16-08-2016.

NAME	PROFESSION	POSITION IN THE COMMITTEE
Prof. Mrs. Santhi Letha	Nursing	Chair Person
Dr. Kani Raj Peter	Medical	Basic Medical Scientist
Dr. T.C. Suguna	Nursing	Clinician
Adv. Mohanan	Legal	Legal Expert
Prof. Mrs.Ajitha Retnam	Nursing	Member secretary
Dr.P. Selva Raj	Management	Philosopher
Mr. Natarajan	Social	Medical Social Worker
Mrs. Latha	Lay Person	Community Person

After due ethical and scientific consideration, the ethics committee has approved the above presentation submitted by you.

Regards,

PRINCIPAL
Sree Mookambika College of Nursing
Kulasekharam-629 161

Mrs. Santhi Letha PhD (N)

Ethics Committee Chairperson,

Date : 16-08-2016

Sree Mookambika College of Nursing,

Place :Kulasekharam

V.P.M. Complex, Padanilam, Kulasekharam.

APPENDIX - B

SREE MOOKAMBIKA COLLEGE OF NURSING

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Phone : 04651 - 280743, 280866, 280742, 280745

Date :.....
Lr. No.

LETTER SEEKING EXPERT OPINION FOR TOOL VALIDITY

To

Madam/Sir

Sub : M.Sc Nursing Programme dissertation – Validation of study tool request – reg:

Ms/Mrs. **Dhanya. M** a bonafide if II Year M.Sc Nursing student of Sree Mookambika College of Nursing is approaching you to obtain validation of study tool pertaining to her dissertation in practical fulfillment of the requirement for the degree of Master of Science in Nursing. The selected topics "A Study to assess the effectiveness of alma alfatir water compress on breast engorgement among postnatal mother in Sree Mookambika Medical College Hospital at Kulasekharam, Kanyakumari District" In this regard I request you to kindly extent possible technical guidance and support for successful completion of dissertation.

I enclosed here with a check list for your evaluation.

Thanking You

Yours Sincerely

PRINCIPAL
Sree Mookambika College of Nursing
PRINCIPAL

APPENDIX - C

LIST OF EXPERTS FOR TOOL VALIDATION

1. **Prof. Asha . K.V, M.Sc.,(N)**
   Assistant Professor.
   Government College of Nursing,
   Thiruvananthapuram.

2. **Prof. Mrs.Arzta Sophia M.Sc.,(N),**
   Associate professor,
   Obstetrics and Gynacological Nursing,
   C.S.I College of Nursing,
   Neyyoor.

3. **Prof. Mrs. Tarsis Henita H.J. M.Sc., (N),**
   HOD, Obstetrics and Gynaecological Nursing,
   C.S.I, College of Nursing,
   Karakonam, Trivandrum.

4. **Prof. Mrs.P. Shanthi, MSc(N)**
   HOD, Obstetrics and Gynaecological Nursing,
   C.S.I, Jeyaraj Annapakiam College of nursing
   Pasumalai, Madurai.

5. **Mrs. Archana C.K. M.Sc.,(N),**
   Assistant Professor,
   Sree Gokulam Nursing College,
   Trivandrum.

6. **Mrs. Deepthi P Nair, M.Sc., (N)**
   Assistant professor,
   NIMS college of Nursing
   Neyyattinkara

Appendix D

REQUEST FOR TOOL VALIDITY

Name of the expert:

Designation:

College:

Respected Madam/Sir,

Kindly go through the content and place the (√) marks against the check list in the following columns ranking from relevant. Whatever there is a need for modification, kindly give your opinion in the remarks column.

Date: Signature

APPENDIX - E

SECTION - A

DEMOGRAPHIC VARIABLES

Demographic Data :

1. Age of the mother
   a. 20years- 25years
   b. 26years- 30years
   c. 31 years- 35years
   d. More than 35 years

2. Education
   a. Illiterate
   b. Primary school
   c. High school
   d. Higher secondary school
   e. Collage

3. Food Habits
   a. Vegetarian
   b. Non vegetarian

4. Type of family
   a. Nuclear family
   b. Joint family
   c. Extended family

5. Area of residence
   a. Urban
   b. Rural

APPENDIX - F

SECTION - B

OBSTERICAL VARIABLES

OBSTERICAL DETAIL

1. Order of parity (Birth)
   a. one
   b. two
   c. more than two

2. Mode of delivery
   a. vaginal delivery
   b. vaccum delivery
   c. forceps delivery
   d. Caesarean section

3. Post natal day
   a. 4-6 days
   b. 7-9 days
   c. more than 9 days

4. Type of newborn
   a. Term new born
   b. Pre-term new born

5. Type of nipple
   a. Normal
   b. Flat
   c. Inverted
   d. cracked

6. Initiation of breast feeding
   a. within 2 hours
   b. within 2-4 hours
   c. more than 4 hours

7. Frequency of feeding
   a. Every 2 hours
   b. As demand

8. Duration of feeding
    a. Till baby stops feeding
    b. for 15 minutes
    c. for 10 minutes
    d. for 5 minutes

9. Position adapted for feeding
    a. sitting
    b. side lying

10. Pattern of breast feeding at each time
    a. Feeding on one side breast
    b. Feeding on both breast

11. Mode of breast feeding
    a. Direct breast feeding
    b. Expressed breast feeding

APPENDIX

Procedure on alma alfatir water compress over breast

Definition

The application of moist heat over the engorged breast with cotton cloth

Effects

- Increase circulation locally
- Relief pain
- Relief congestion and reduce engorgement

Set the articles inatray.

- ❖ Jug with warm water
- ❖ Small towel – to applied the breast
- ❖ Lotion thermometer - to measure the temperature of water
- ❖ Observation for 6 point engorgement scale – to record and reporting
- ❖ Pen to write

PROCEDURE

⇒ Explain the procedure with written oral consent from the mother

⇒ Place the mother supine position

⇒ Check the temperature of water by using lotion thermometer

⇒ Expose the area need to be alma alfatir compress

⇒ Apply this water compress over both the breast

⇒ Apply compress directly on the area to be treated without pressure.

⇒ Continue compress for 15 to 20 minutes , renewing every 3 to 5 minutes.

⇒ Alma Alfatir compress the breast 2 times a day with the interval of 8 hours. (9 am - 4 pm) per day.

After the procedure

Mother was instructed to clean the breast and feed the baby; an obstruction was made using 6 point engorgement scale. The mother is made comfortable.

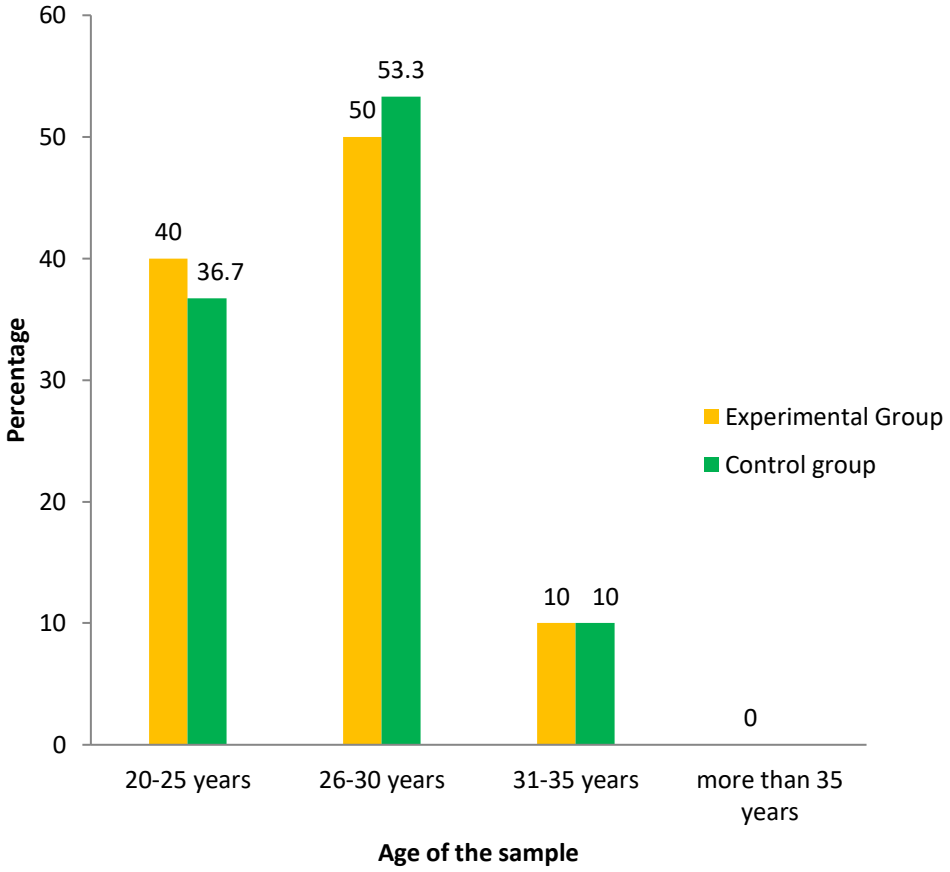

Figure 3 (a) : Distribution of Sample According to the Age.

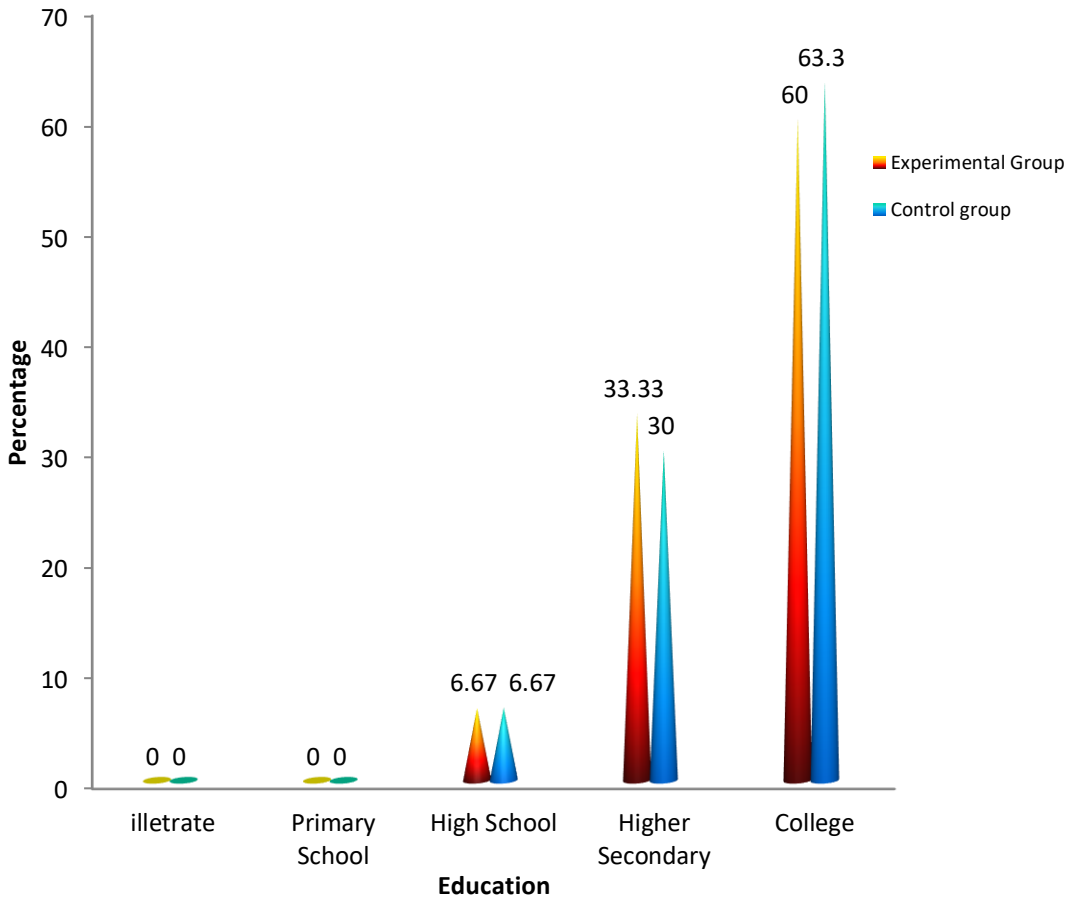

Figure 3 (b): Distribution of Sample According to the Education

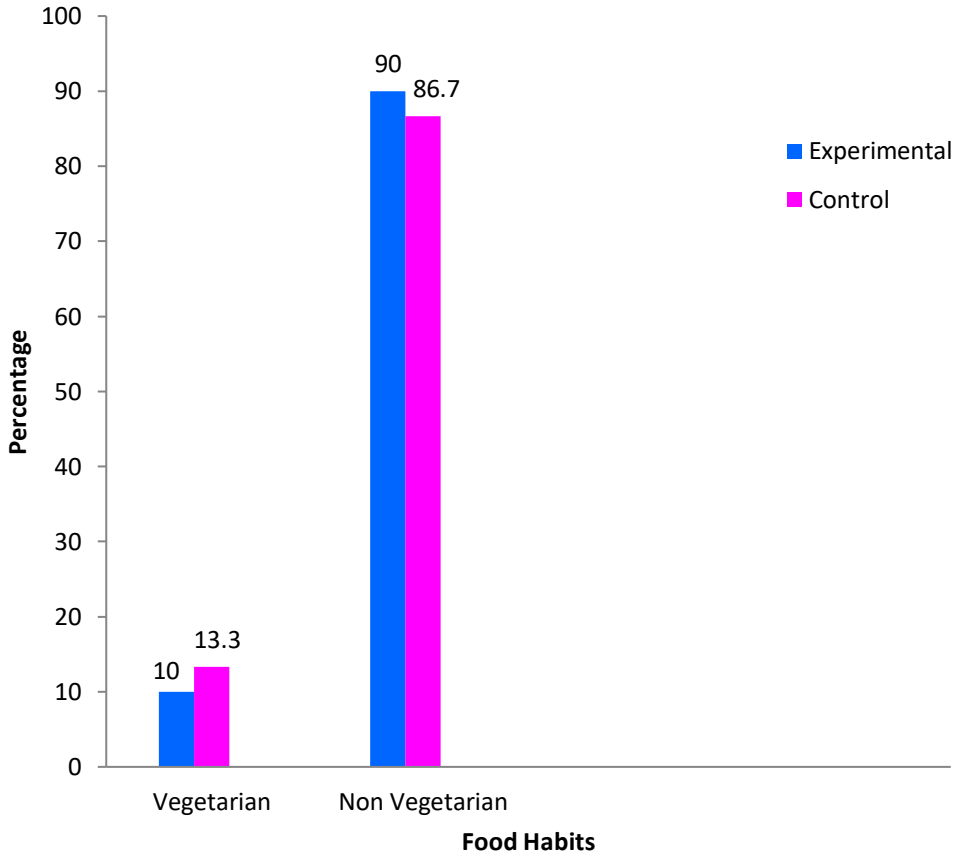

Figure 3 (c): Distribution of samples according to Food Habits.

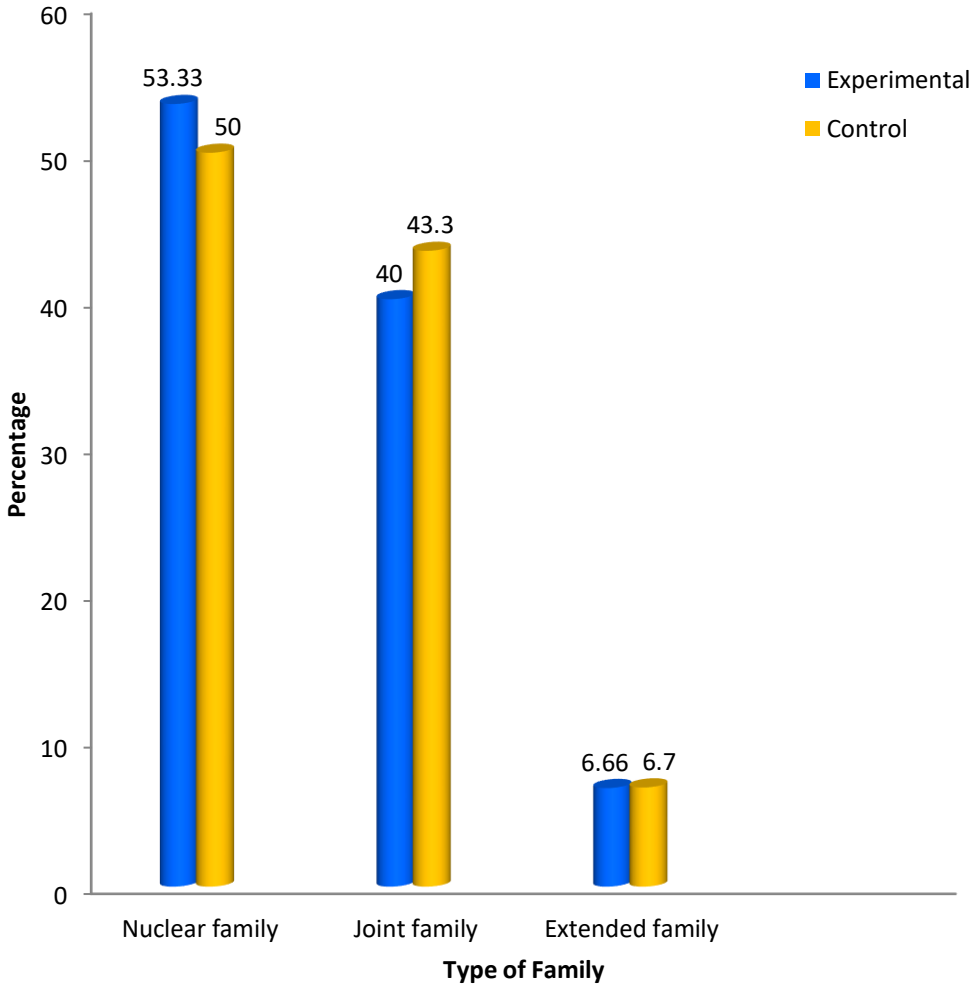

Figure 3 (d): Distribution of Samples according to Type of Family.

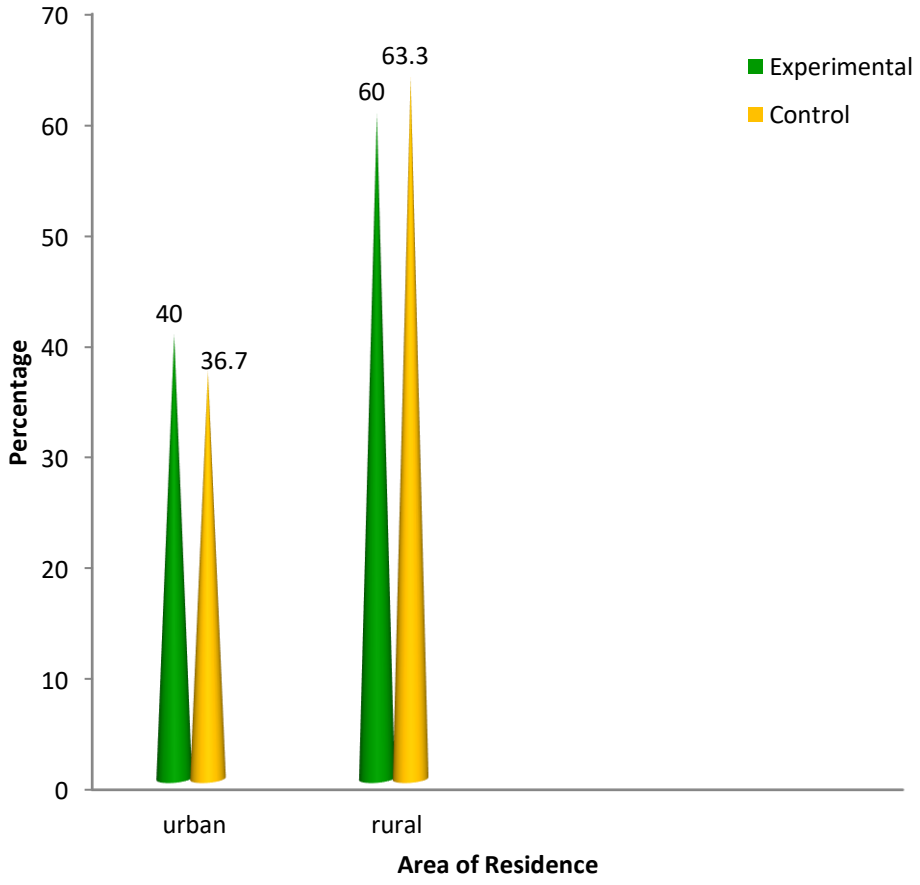

Figure 3 (e): Distribution of samples according to Area of residence.

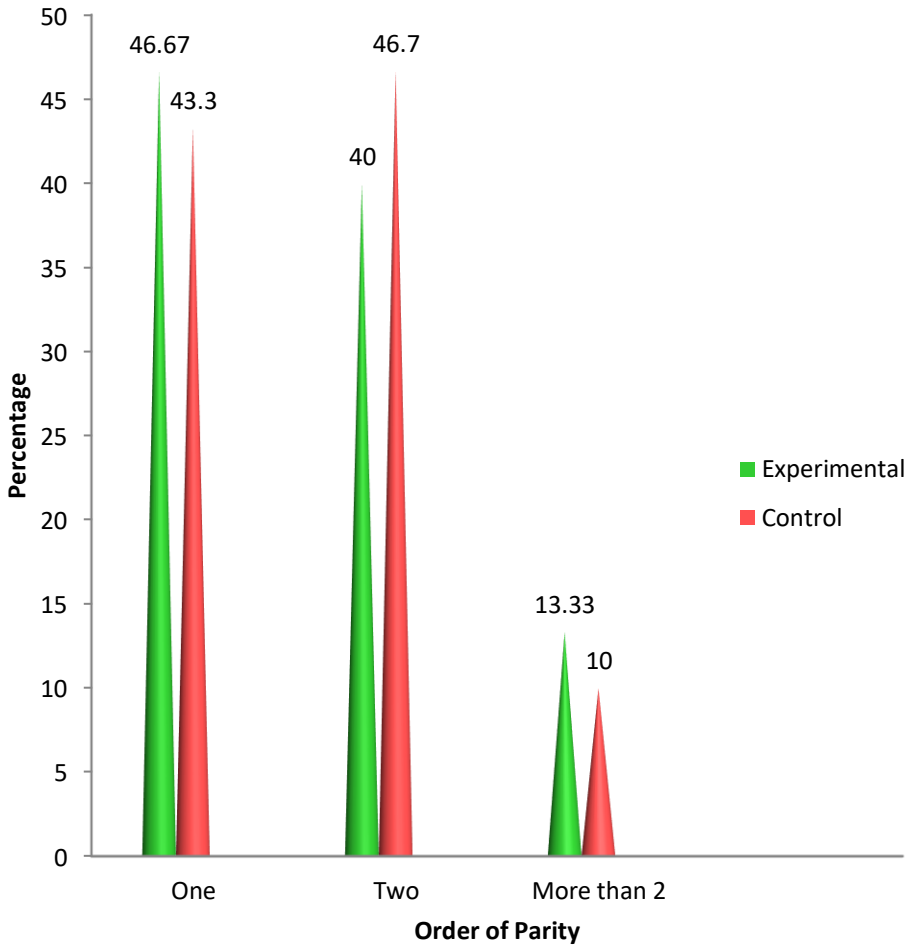

Figure 4 (a): Distribution of Sample according to Order of Parity.

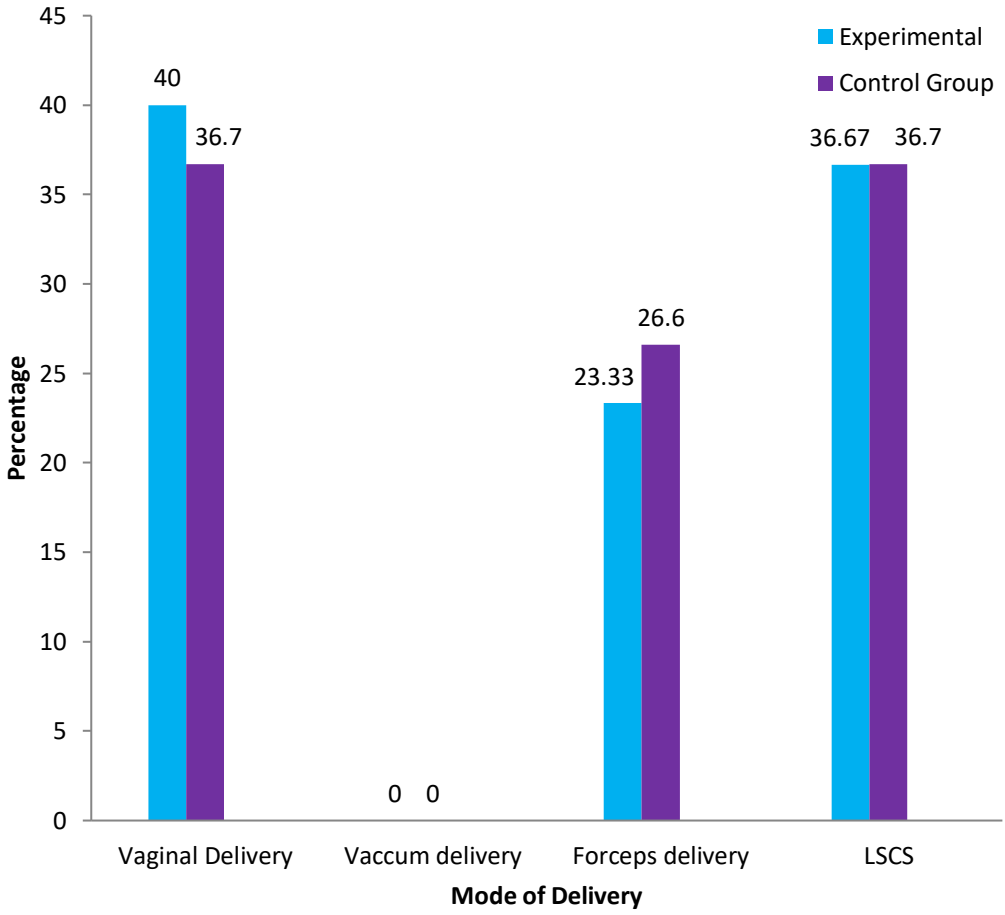

Figure 4 (b) : Distribution of Samples according to Mode of Delivery.

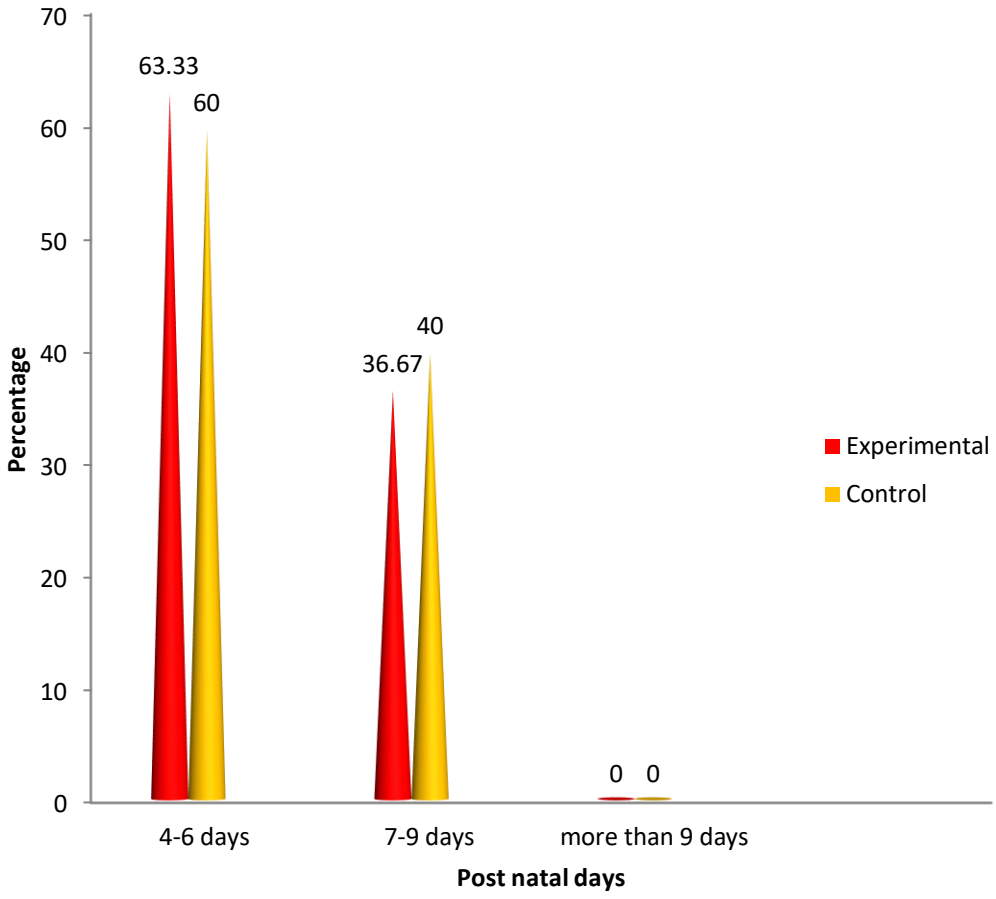

Figure 4 (c) : Distribution of sample according to post natal day.

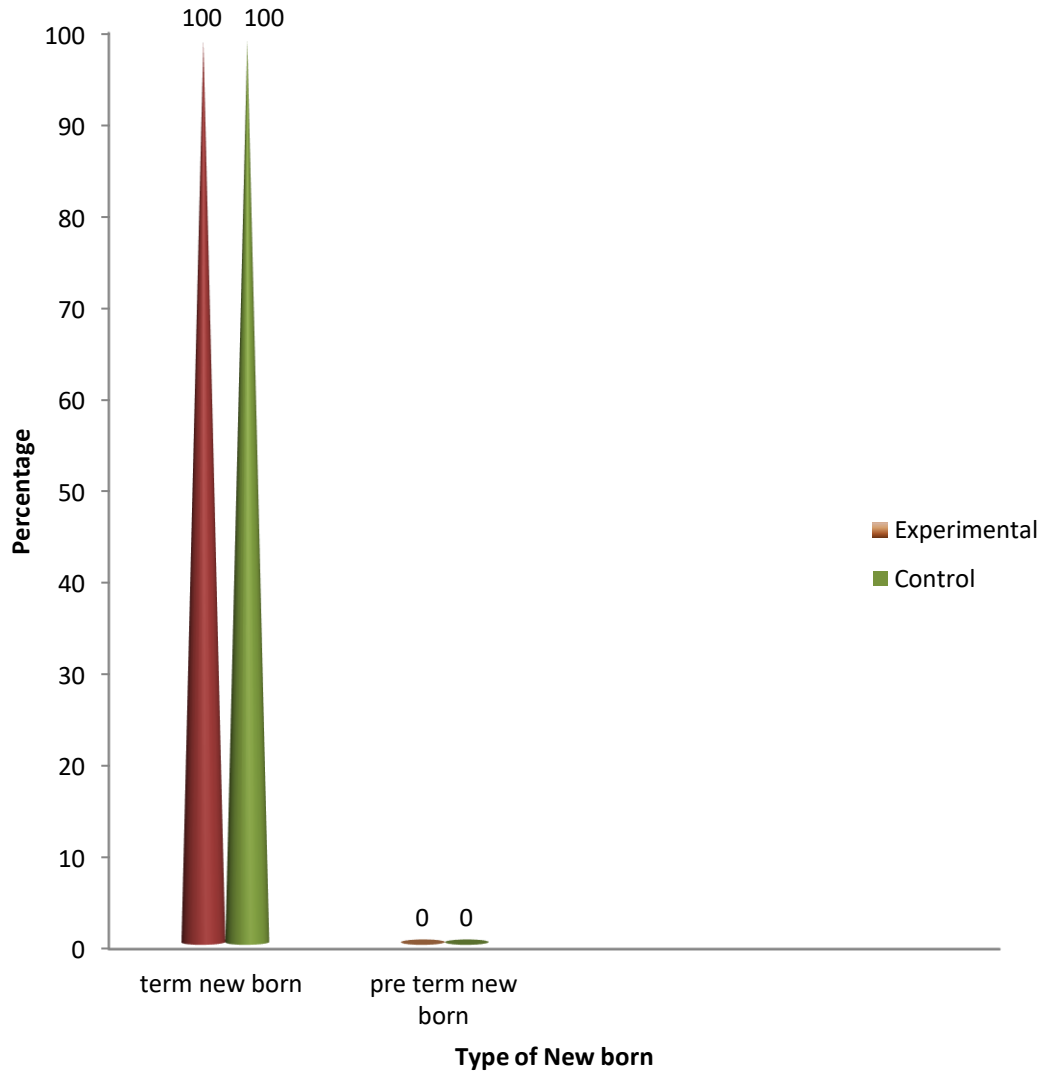

Figure 4 (d) : Distribution of samples according to Type of Newborn.

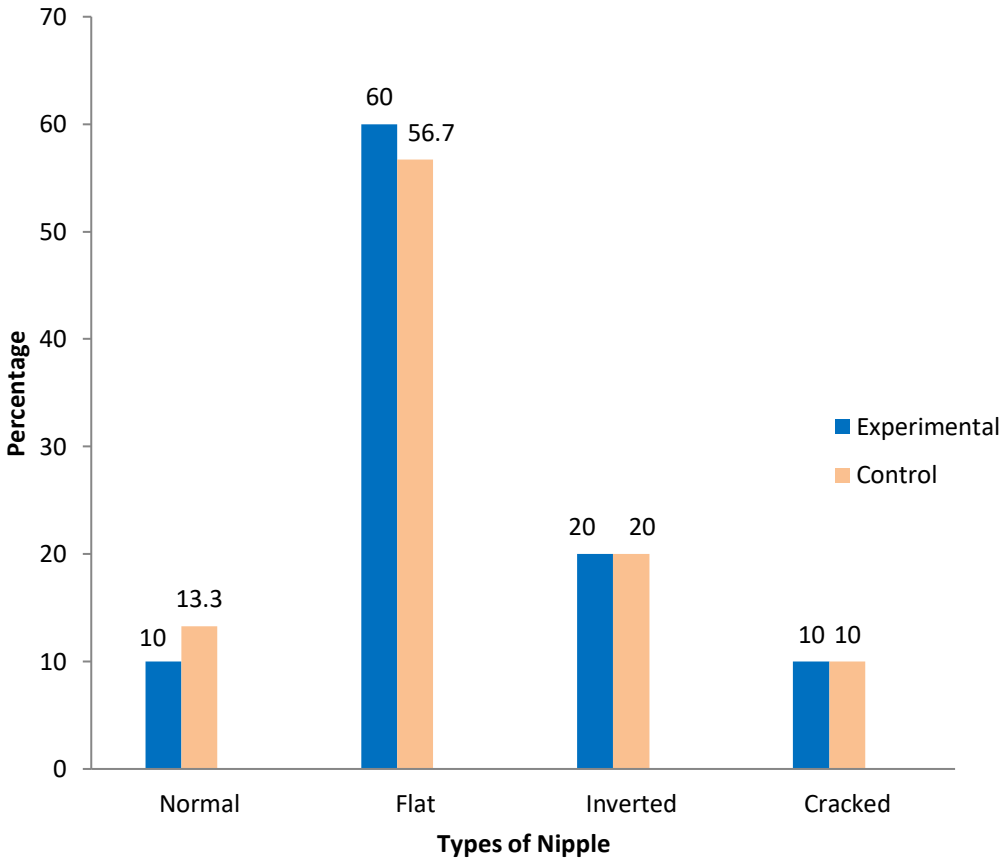

Figure 4 (e) : Distribution of samples according to Types of Nipple.

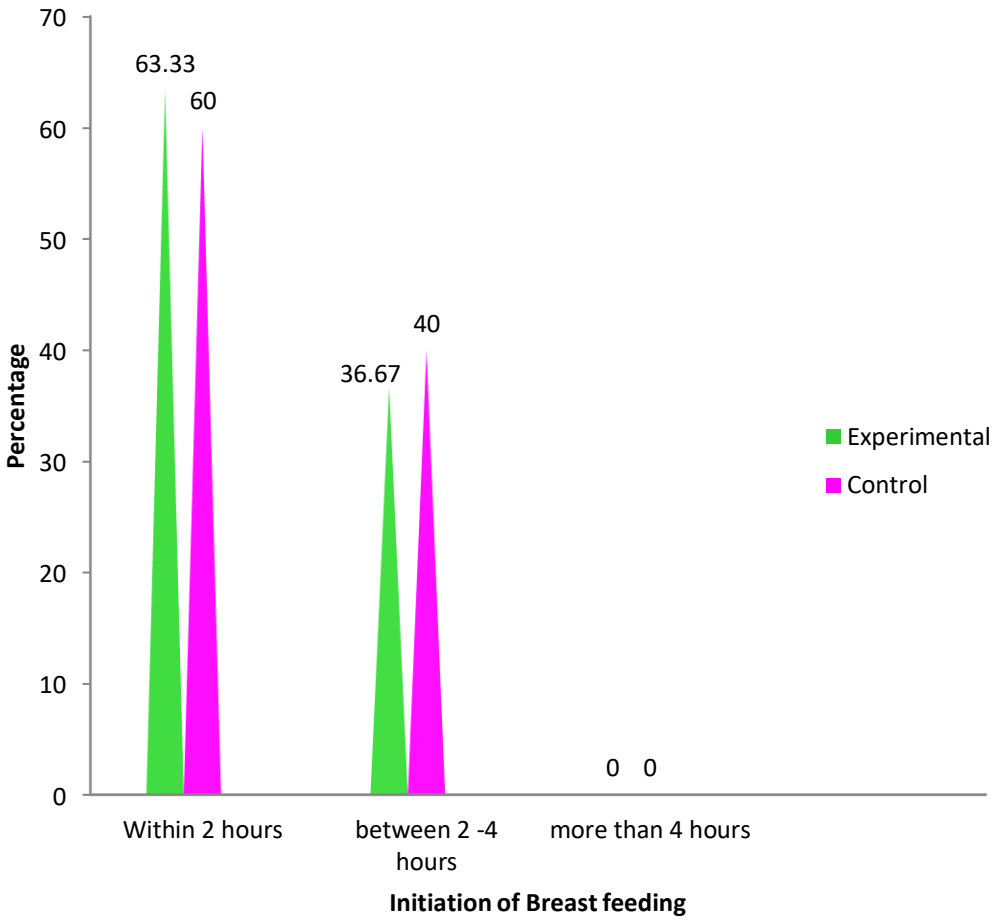

Figure 4 (f) : Distribution of samples according to Initiation of Breast feeding.

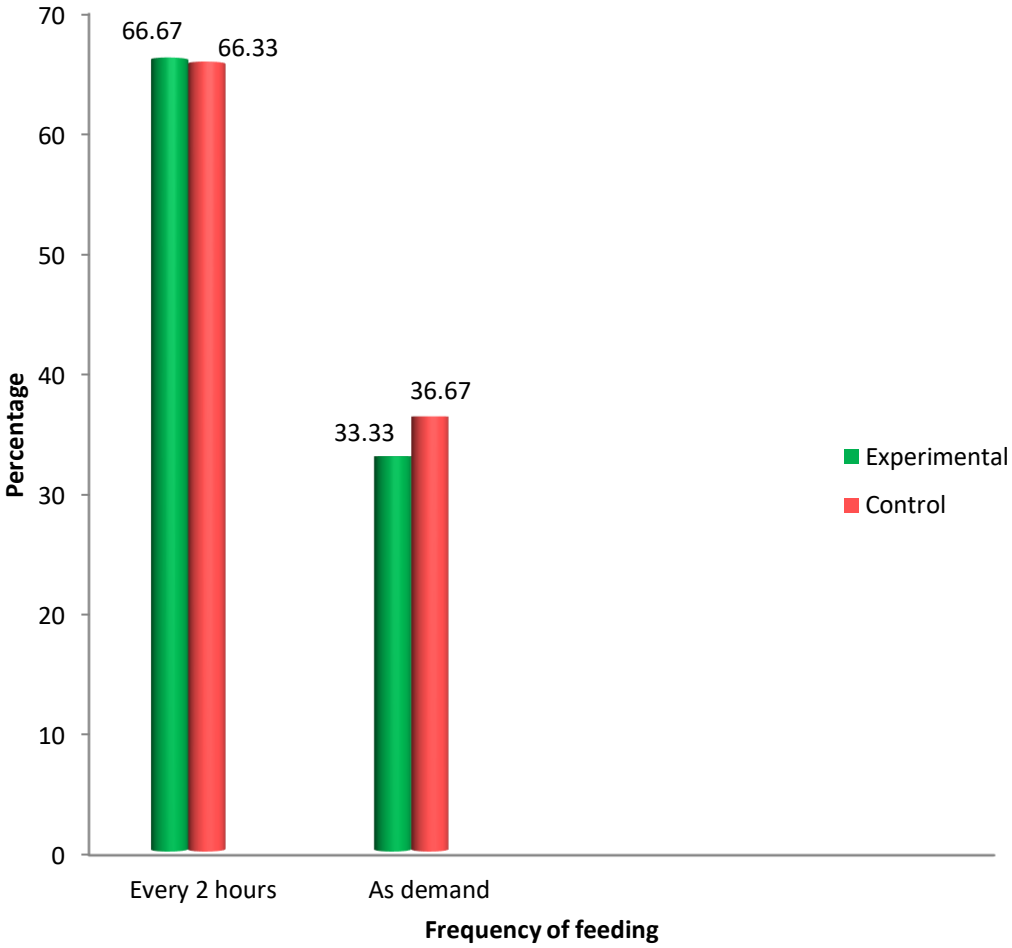

Figure 4(g) : Distribution of samples according to Frequency of feeding.

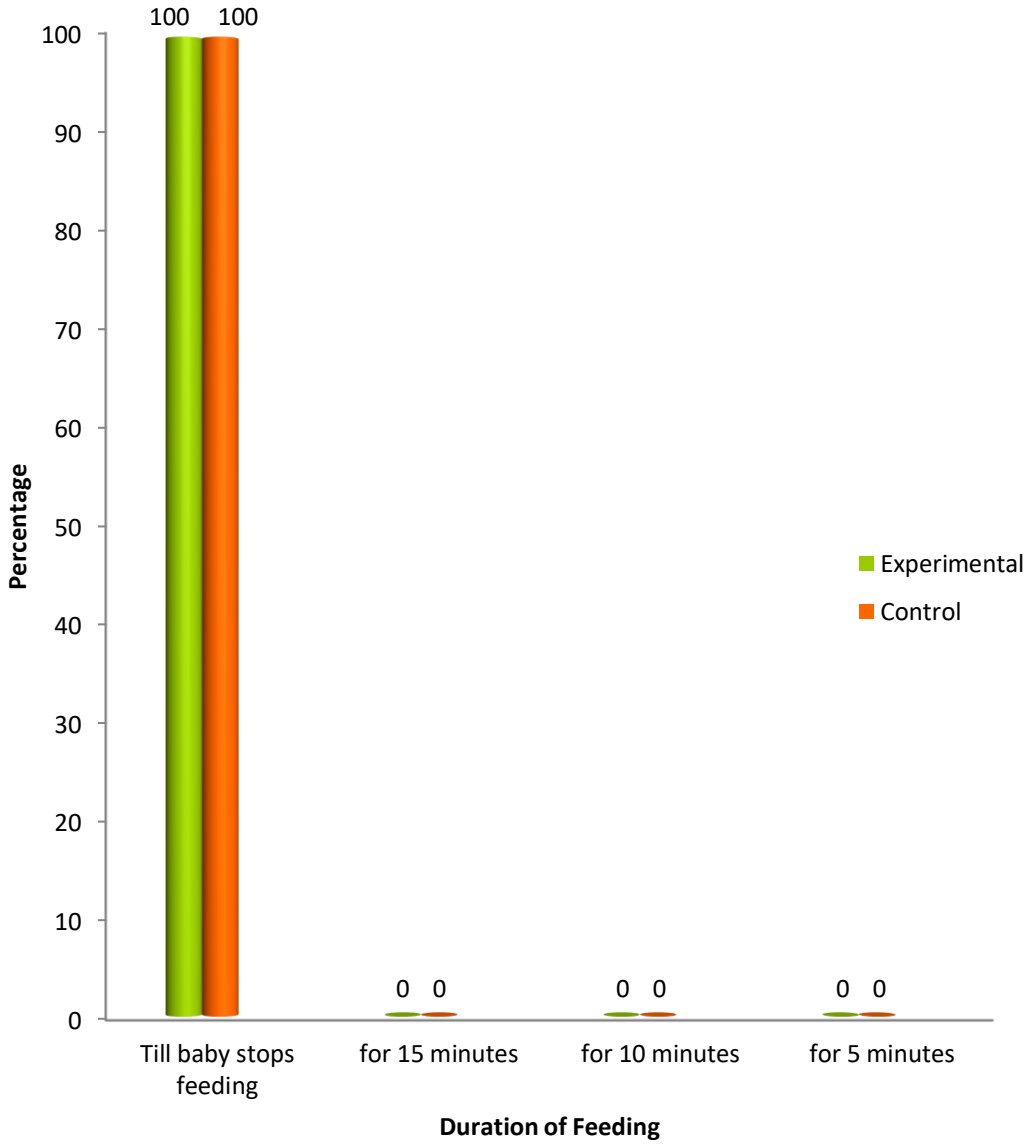

Figure 4 (h) : Distribution of samples according to Duration of Feeding.

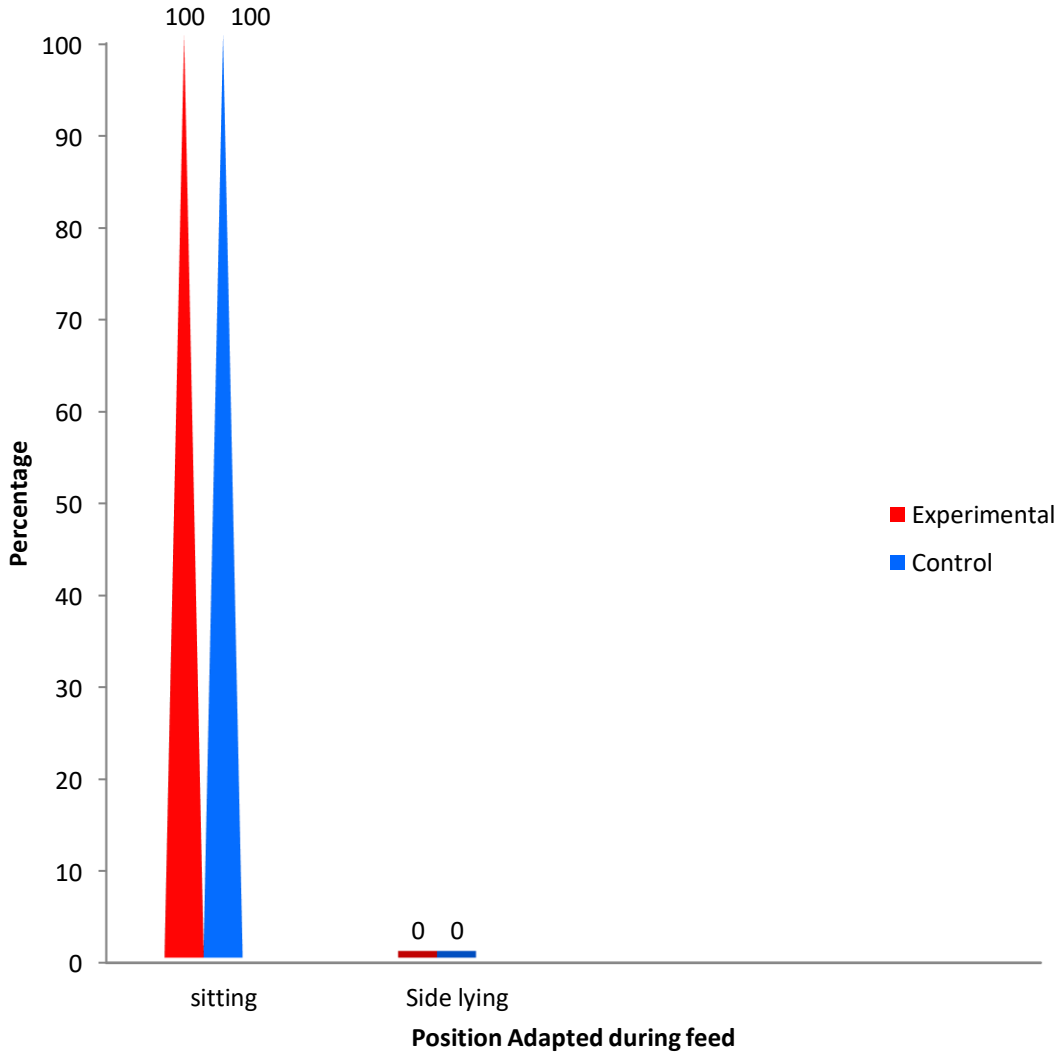

Figure 4(i) : Distribution of samples according to Position Adopted during period.

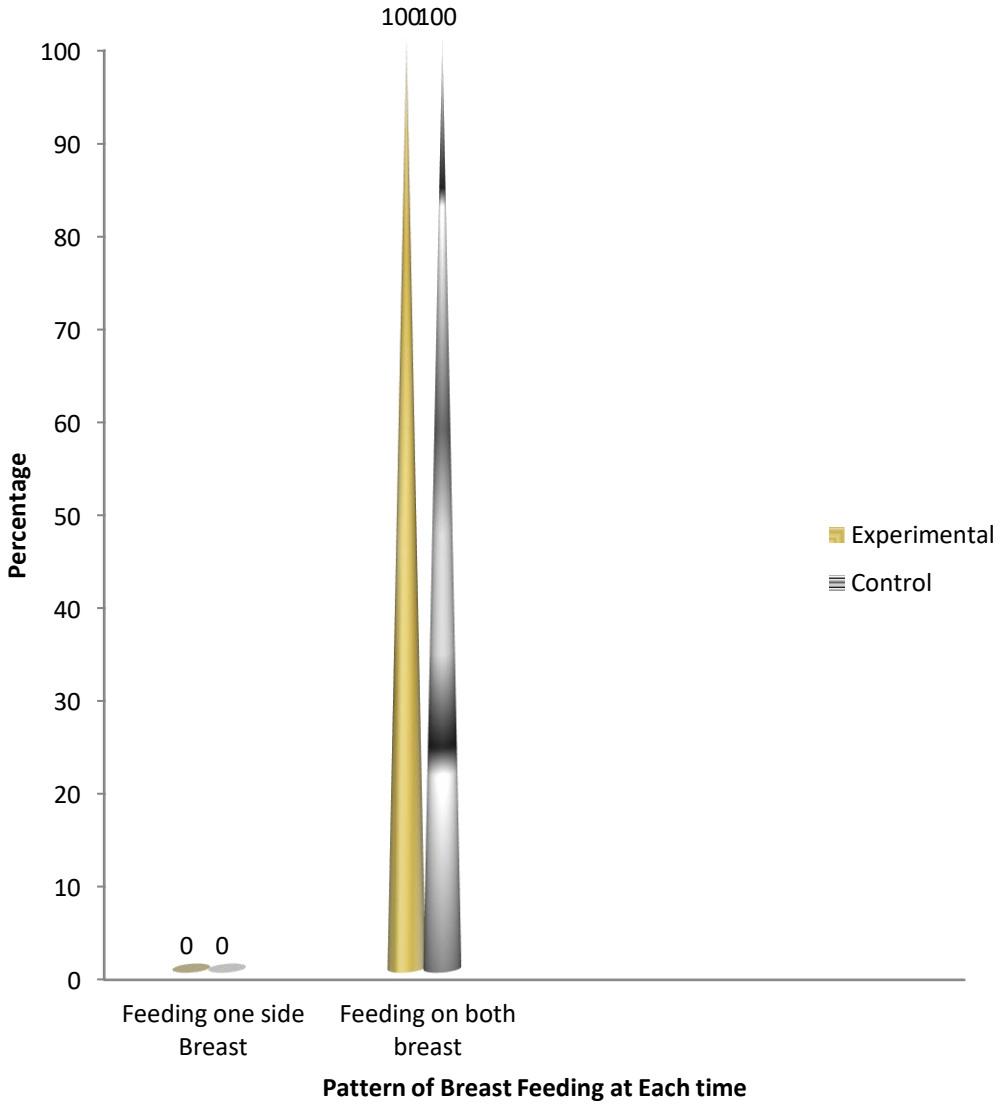

Figure 4 (j) : Distribution of Samples according to Pattern of Breast feeding at each time.

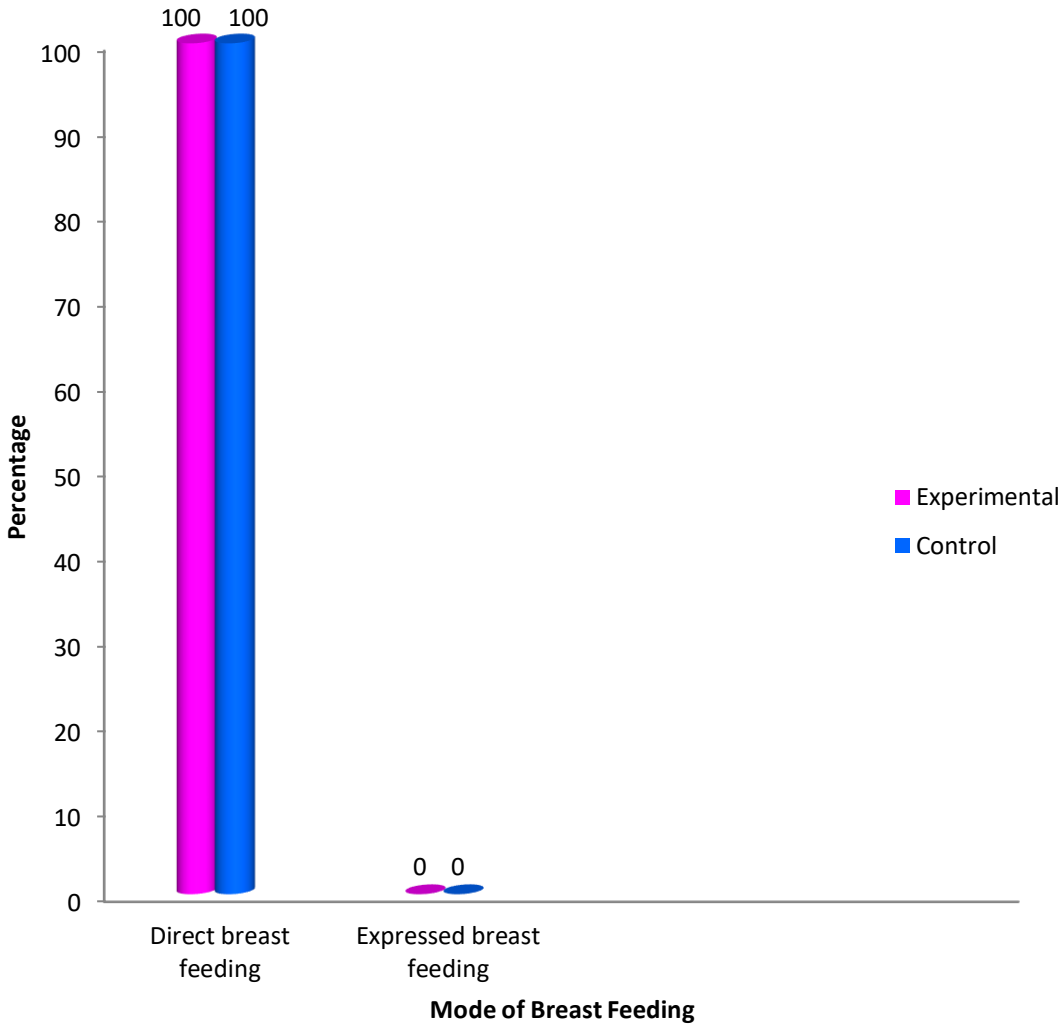

Figure 4 (k) : Distribution of samples according to Mode of breast feeding.

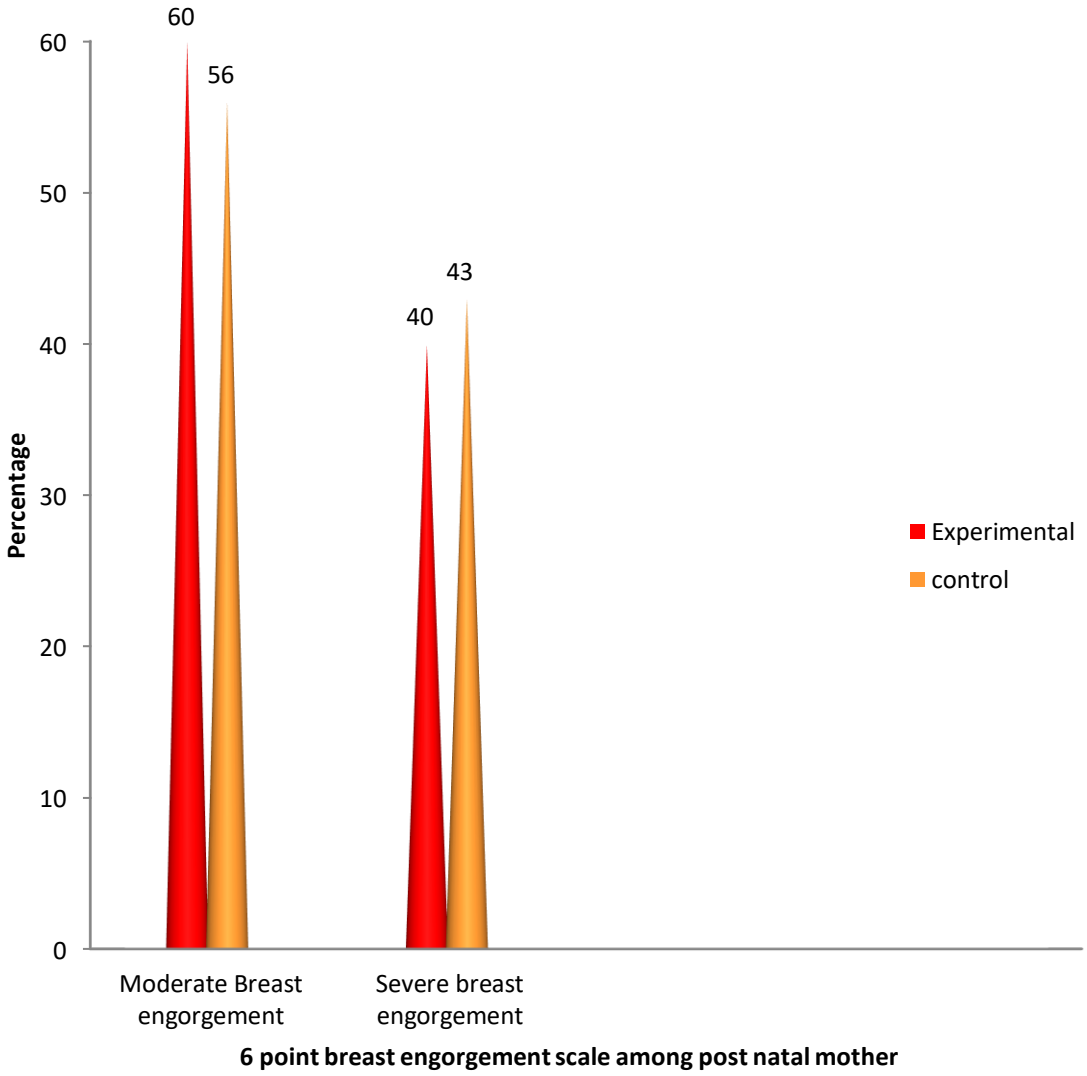

Figure : Distribution of samples according to 6 point breast engorgement scale among post natal mother.

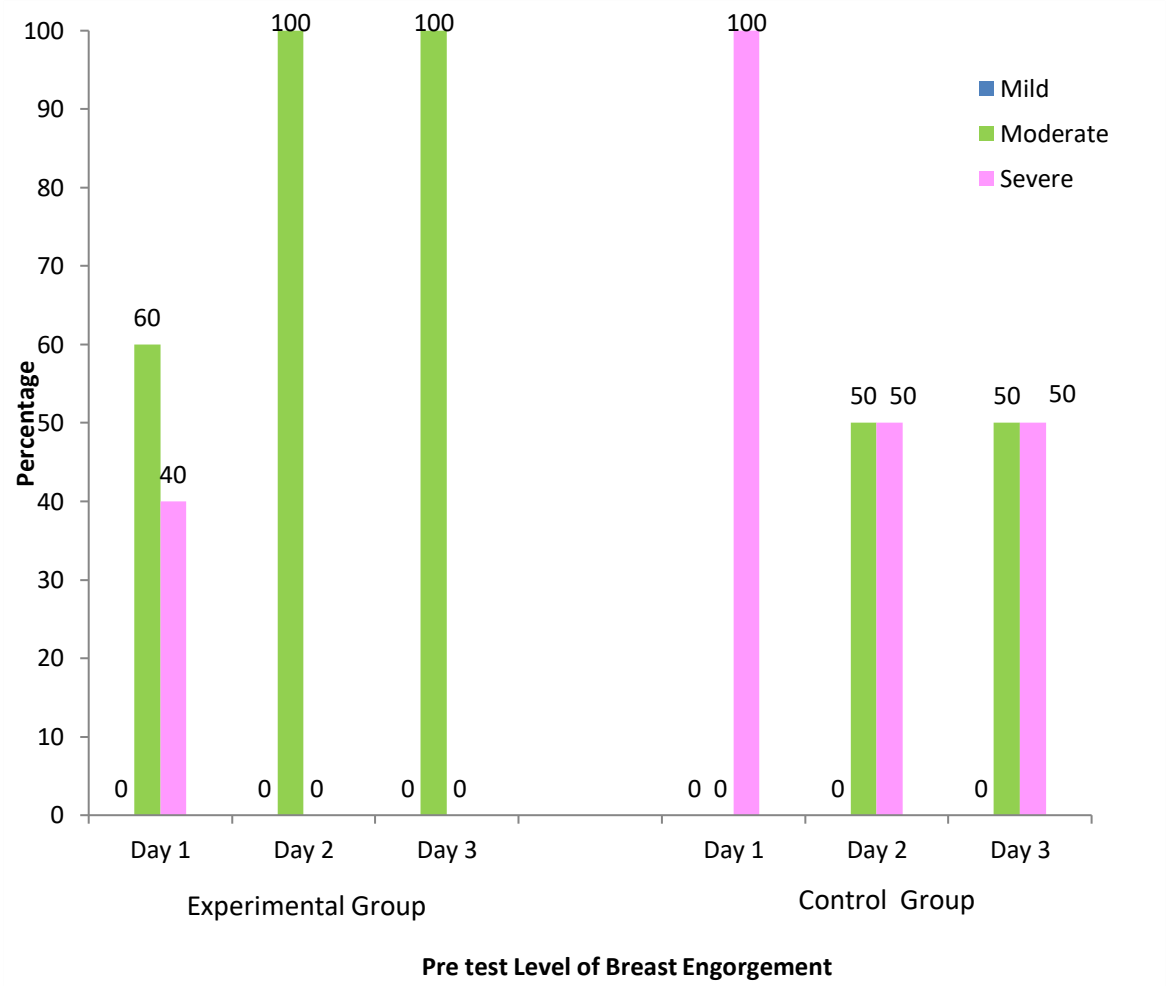

Figure 5 (a) : Frequency and Percentage Distribution of Pre test Level of Breast Engorgement

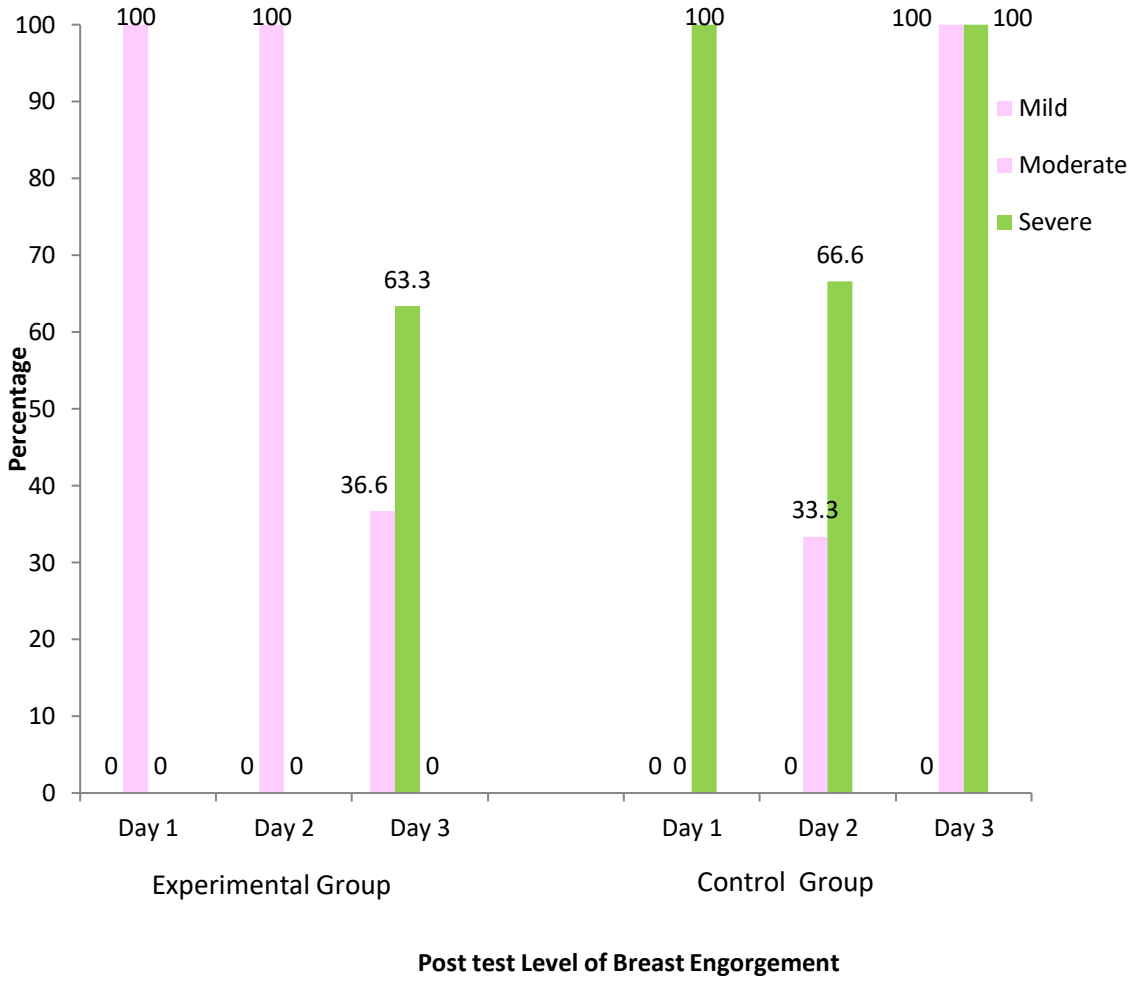

Figure 5 (b) : Frequency and Percentage Distribution of Post Test Level of Breast Engorgement

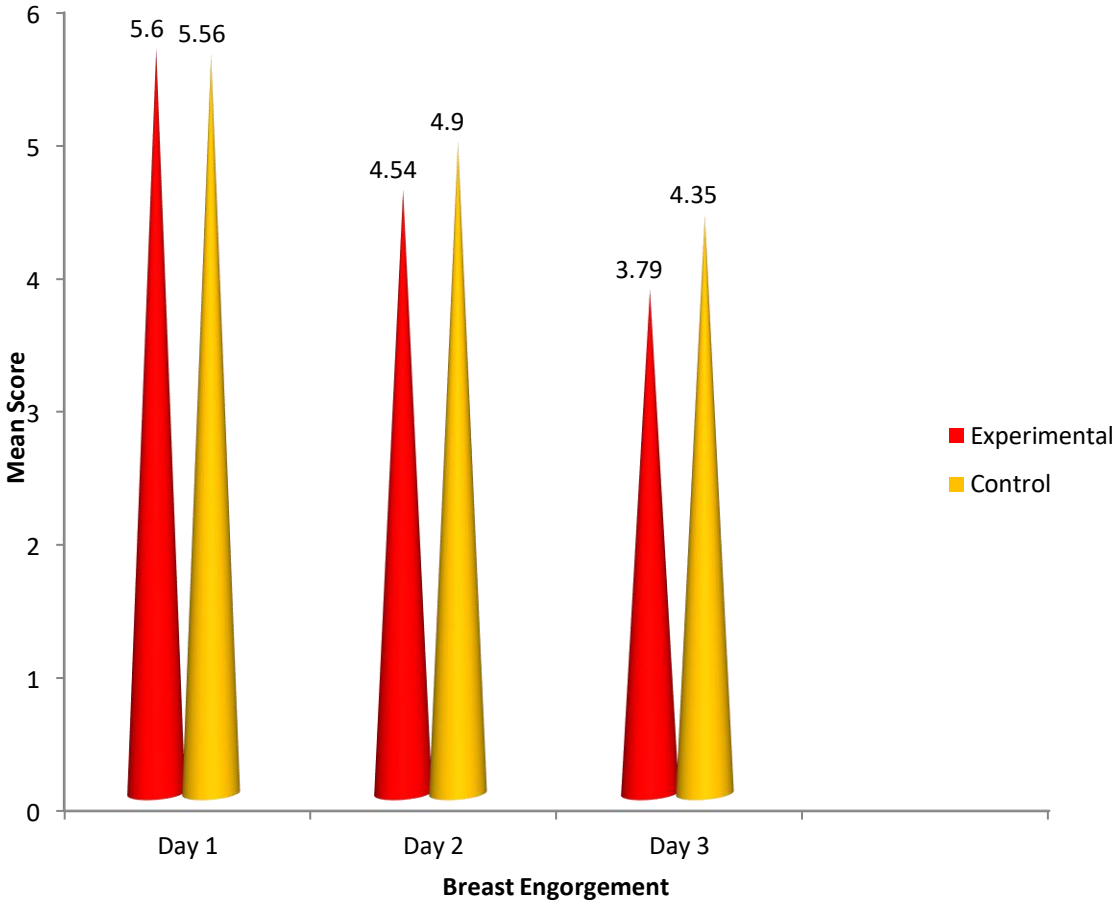

Figure 6 (a) : Comparison of pretest mean score of breast engorgement in experimental and control group

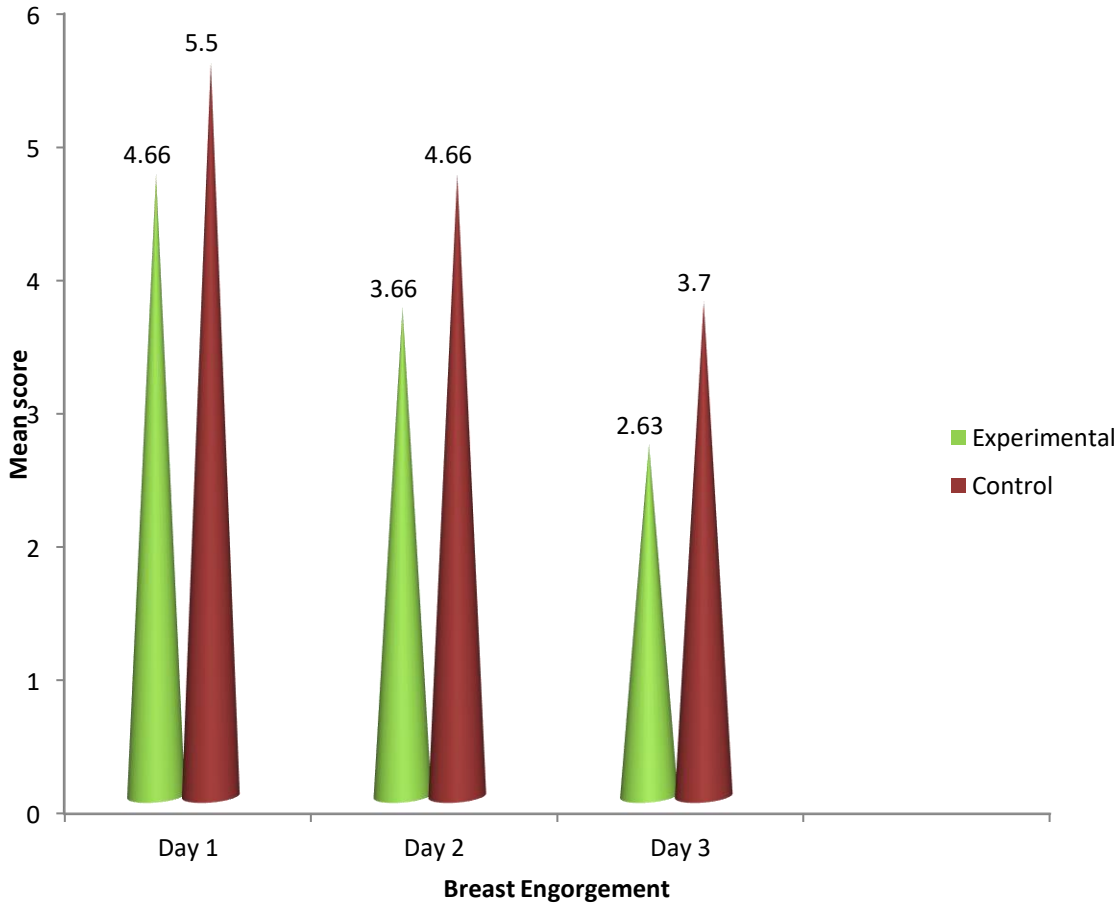

Figure 6 (b) : Comparison of post test mean score of breast engorgement in experimental and control group

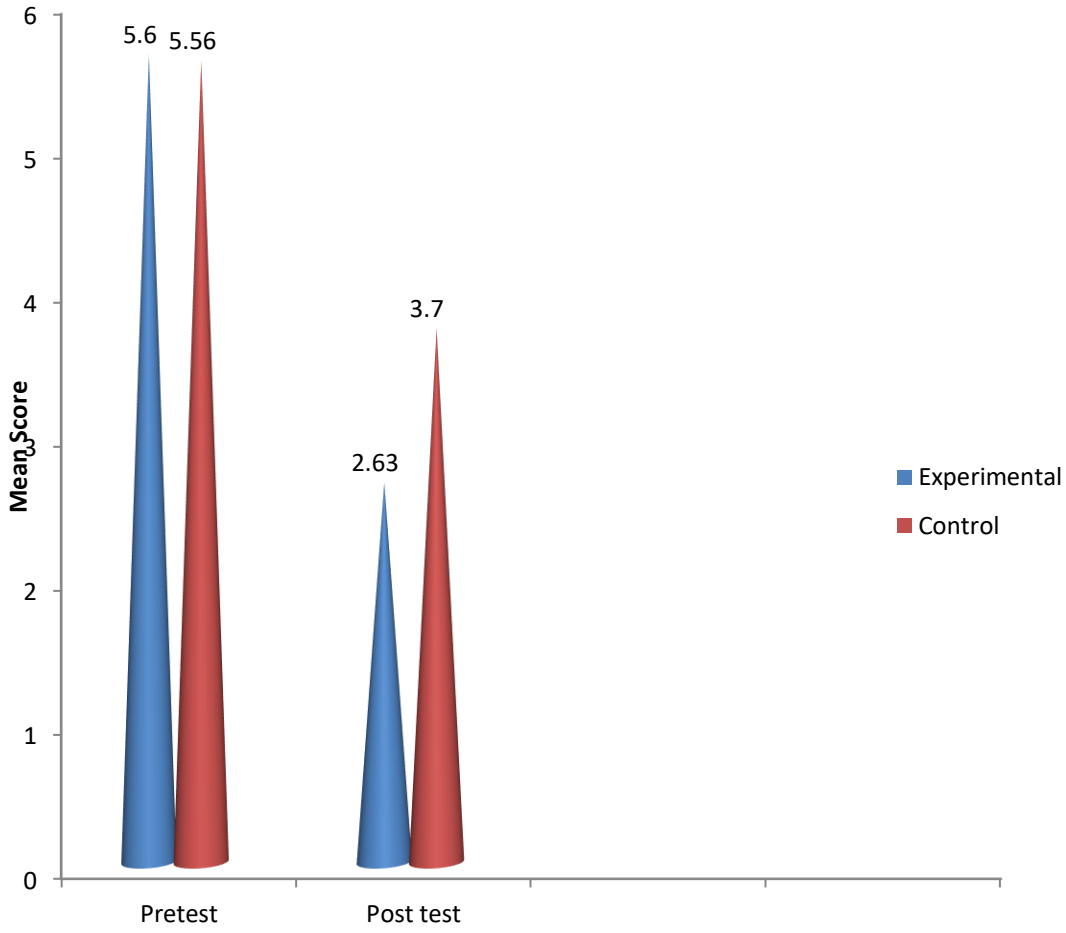

Figure 7 : Effect of Alma Alfatir Water Compress on Breast Engorgement

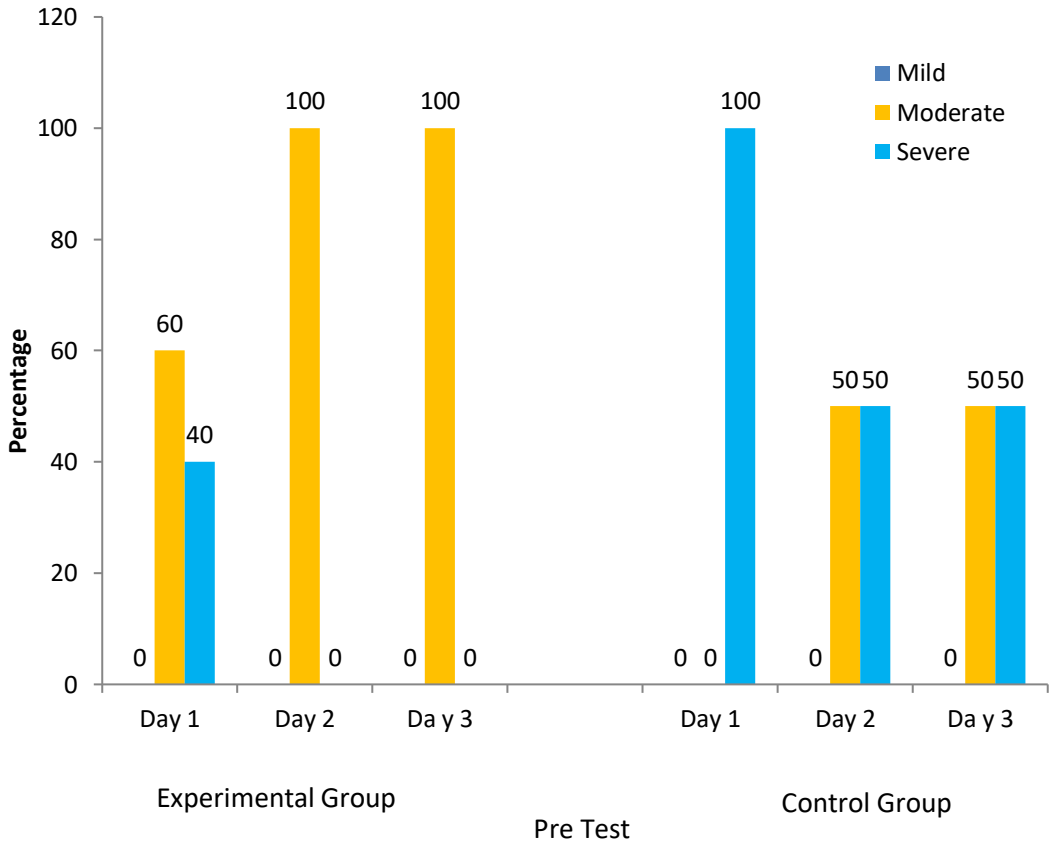

Figure 5 (c) Comparison of Breast Engorgement Pre test in Experimental group and Control group

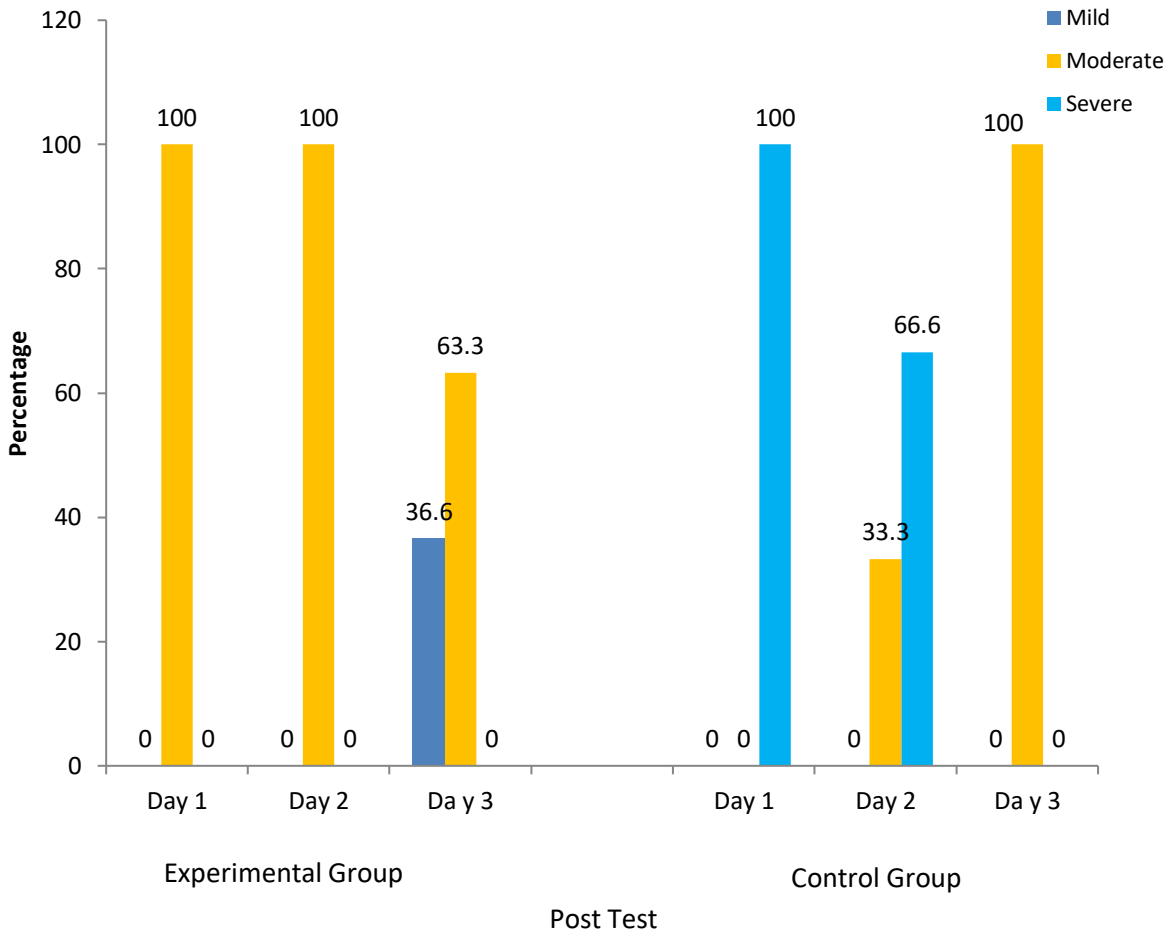

Figure 5 (c) : Comparison of Breast Engorgement Post test in Experimental group and Control group

SECTION A

DEMOGRAPHIC VARIABLE

Item No	Relevant	Needs modification	Not relevant	Remarks

SECTION B

OBSTETRICAL VARIABLES

Item No	Relevant	Needs modification	Not relevant	Remarks

SECTION - G

SIX-POINT BREAST ASSESSMENT SCALE

Score	Description	Day 1		Day 2		Day 3	
		Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
1	Soft, no change in breasts						
2	Slight change in breasts						
3	Firm, non-tender breasts						
4	Firm, beginning tenderness in breasts						
5	Firm, tender						
6	Very firm, very tender						